

THE
ARCHITECT
& BUILDING NEWS

IN THIS ISSUE

- THE MARGARET McMILLAN TRAINING
COLLEGE, BRADFORD
- CHRISTMAS MISCELLANY

DECEMBER 25, 1952

VOL. 202

NO. 4384

ONE SHILLING WEEKLY



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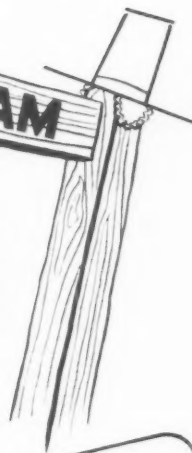
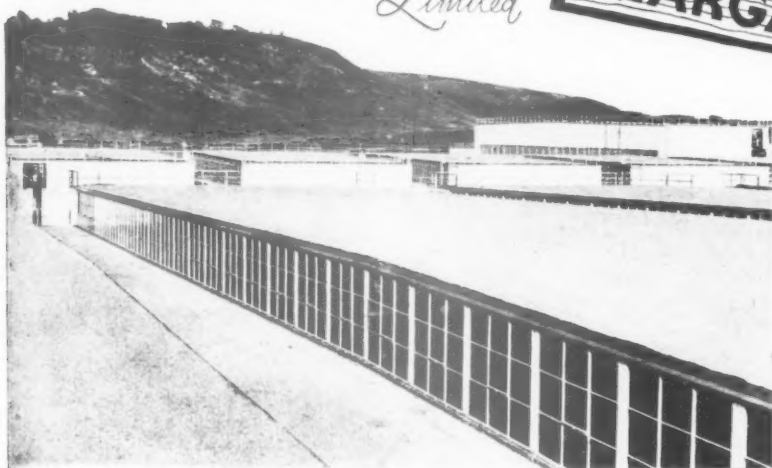
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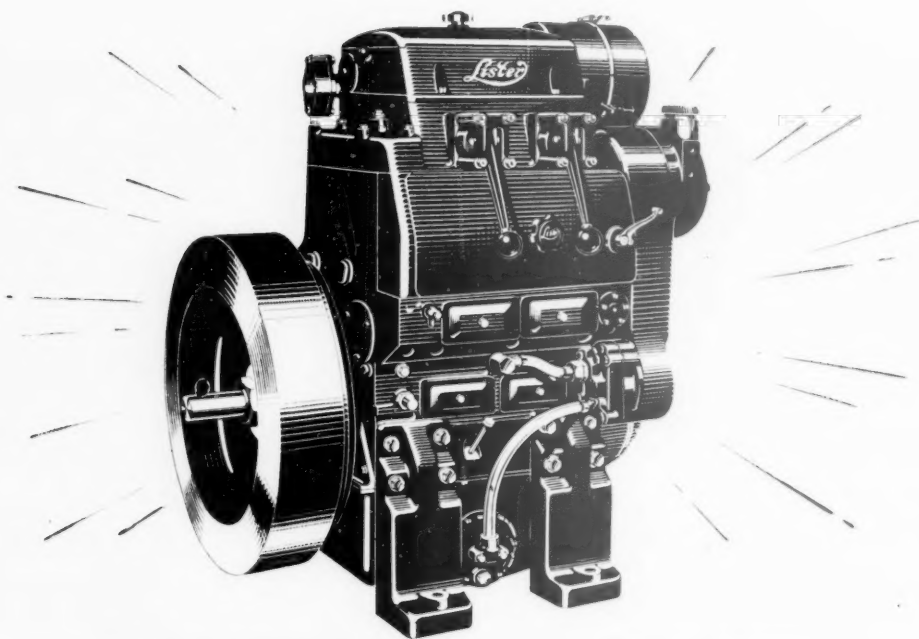
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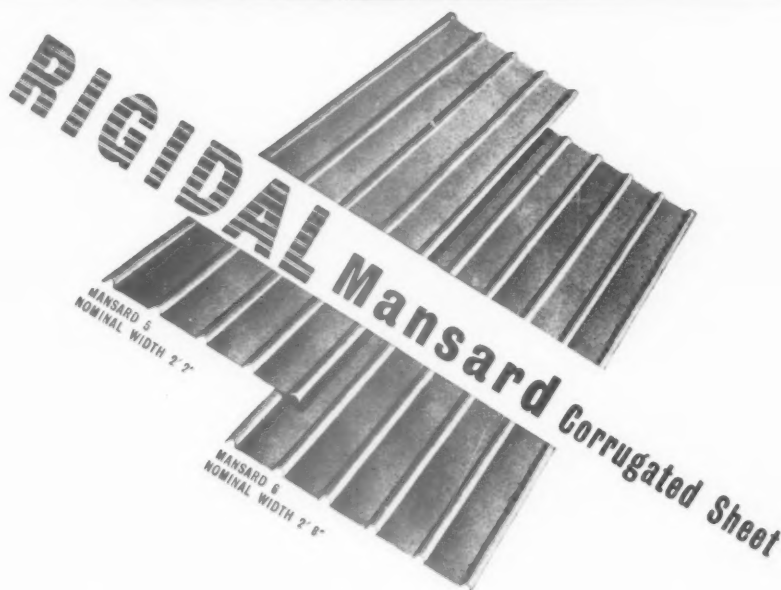
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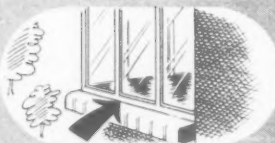
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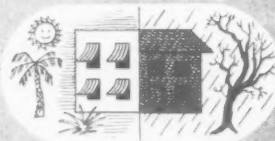
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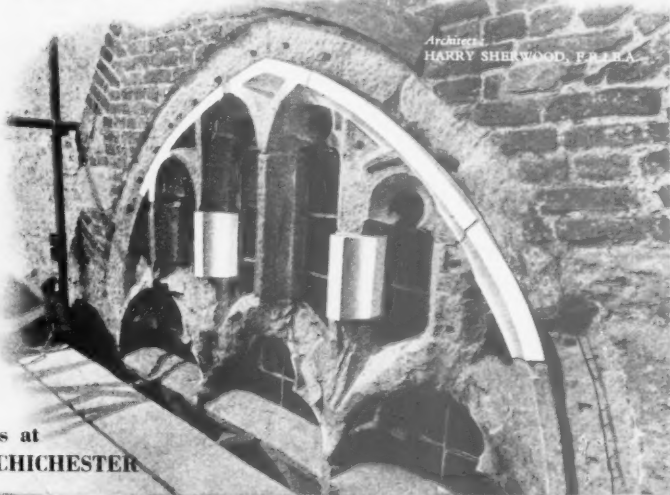
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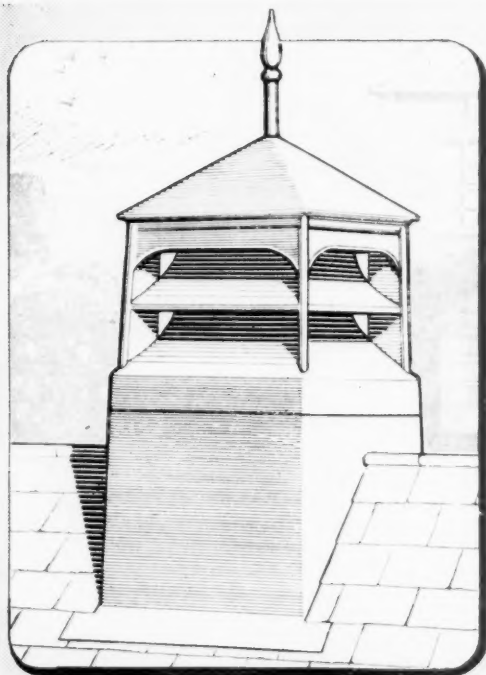


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It's Phosphate Coated for Long, Rust-proof Life

The Dining Hall in the new L.C.C. Susan Lawrence Primary School. Extra strong tubular steel furniture by Shepherd combines modern good looks with unusual strength—keeps maintenance costs down.

THE recently opened Susan Lawrence L.C.C. School at Cordelia Street, Poplar, has a dining hall equipped throughout with Shepherd tubular steel chairs and tables. The result is that replacement and maintenance costs, normally an important expense item in schools, are reduced to a minimum. Moreover, the chairs are scientifically designed, with pre-formed plywood seats and backs. They are constructed to encourage correct posture, are virtually non-tipping and are easily cleaned.

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All the units are light and easily handled—even by children, and the chairs nest neatly on top of one another, fifteen in the space of one. Shepherd furniture can be supplied in any colour on the B.S.S. Colour Chart—and the prices are very competitive. Write today for an illustrated catalogue.

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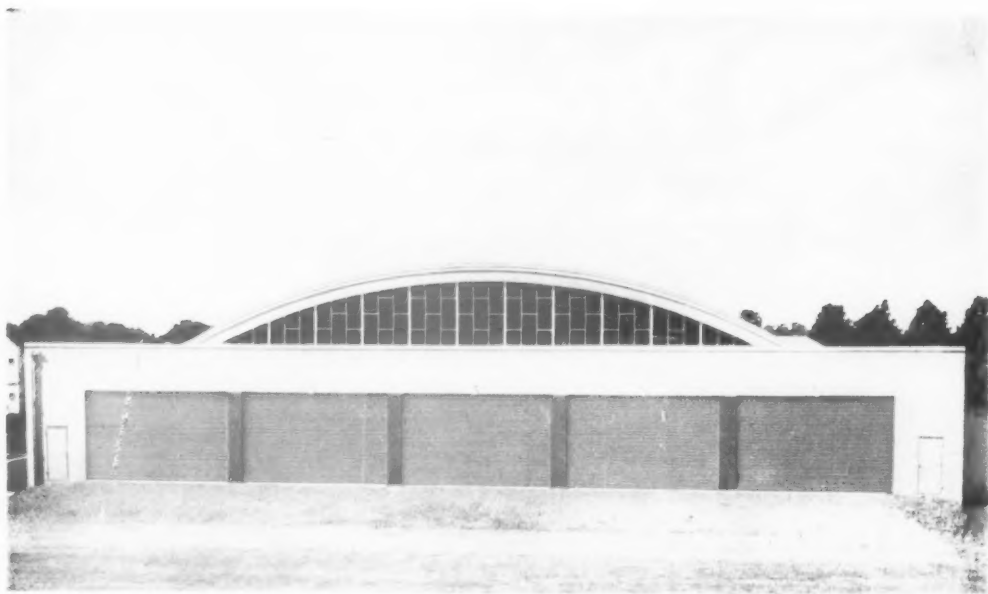
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Steel Rolling Shutters...

Steel Rolling Shutters designed and manufactured by Mather & Platt Ltd., are here shown installed at the Skien garage of A S Busstrafikk, in Norway. The total installation comprises eleven electrically operated steel rolling shutters, five of which are visible on the photograph.



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ECONOMY OF BUILDING MATERIALS

M.O.W. Report by

Sir Charles J. Mole, M.V.O., O.B.E., F.R.I.B.A.,
Director General of Works, Ministry of Works (Chairman).

Sir F. Arthur Whitaker, K.C.B., M.Eng., M.I.C.E.,
Civil Engineer-in-Chief, Admiralty.

Mr. G. H. Fretwell, C.B., M.I.C.E.,
Director General of Works, Air Ministry.

Major-General L. D. Grand, C.B., C.I.E., C.B.E.,
Director of Fortifications and Works, War Office.

Among the recommendations in this report, which represent the joint views of the Ministry of Works, the Admiralty, the Air Ministry and the War Office, are the following:

138. SHED WORK and SINGLE-STOREY WORKSHOPS

"A considerable saving in tonnage is effected by welding as opposed to bolting and riveting. Further savings can be obtained by using strip-rolled or tubular members instead of hot-rolled sections. As an example, in a 3-bay storage shed 120 ft. wide by 210 ft. long, strip-rolled and tubular designs show savings of the order of 30 per cent, and 40 per cent respectively, over the normal bolted and riveted construction."

78. BRIDGES

"For trussed spans the use of tubular members will generally effect material saving, especially in foot bridges."

(p. 33 S.O. code 67-26)

Tubewrights' roof truss, 27 ft. 6 in. span for farm buildings.

A Tubewrights' roof truss of 30 ft. span for tropical buildings.

Part of the mid-section truss (40 ft. span) of the Tubewrights' 'Usk' foot-bridge.

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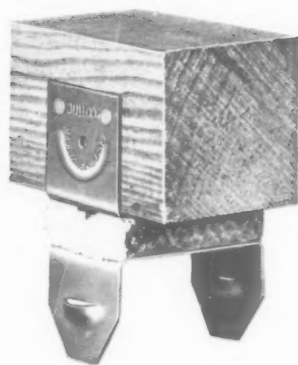
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Cecil Kahn



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Vol. 202 No. 4384

THE
ARCHITECT
& BUILDING NEWS

December 25, 1952

The "Architect and Building News" incorporates the "Architect" founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid; U.S.A. and Canada \$9.00.
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**A Merry
Christmas
to all
Our Readers**

Photograph by
Bryan Westwood,
F.R.I.B.A.



Photos: NORMAN WESTWOOD, A.R.I.B.A.

Ladies Dress Shop in the Talstrasse, Zurich. The stall riser is faced with black mosaic and the window and door frames are metal having a golden satin finish. Note the way in which the door mat has been placed centrally under the door so that half is inside and half outside the shop. It was noted that a number of the more recent shops, as in this example, frankly express their window lighting and do not attempt to conceal it behind pelmets.

The detailed photograph shows a close up of the door handle which is finished in a smooth black and white porcelain enamel.

EVENTS AND COMMENTS

BITING THE HAND THAT FEEDS ME

Ever since I took over this column I have promised the Editor a Christmas page. It has never appeared although I once wrote one. It was a delightful Dickensian story on the lines of A Christmas Carol about a young architect, but for some reason the Editor could not find room for it and suggested using it the following year. When the time came round I reminded him. He looked rather sheepish and said, "Oh, I hoped you had forgotten about it." In default of a special Christmas Number with snow and robins and blazing fires and plum puddings, it must do if I send you, dear readers, most sincere Christmas Greetings in the hope that you will have all you wish for and plenty of it. I will not refer to the New Year here because that forms the subject of another paragraph.

COMPETITIONS IN THE OFFING

I often wonder whether those who constantly complain about the shortage of competitions would go in for them if there were any. They will shortly be put to the test for two important competitions are about to be officially announced. The Dover Corporation is to offer prizes totalling more than 2,000 guineas for the design of flats to house a thousand people on the sea front and expected to

cost half a million pounds. Those who know the sweep of Dover front and the setting of the castle will be eager to have a crack at this one.

The second is, architecturally, more important, but fewer details are at present available. The University of Sheffield is to promote a competition for the design of new buildings in the Western Bank area. It is thought that these will include a library.

There is at present no information about conditions or dates for either competition.

AN ELECTRONIC MEGAPHONE

The marine loud hailer was a most useful invention and I have wanted to have one on my car ever since the captain of a destroyer entering Scapa Flow during the war informed, by this method, a ship full of slightly bewildered soldiers that there was a lovely barmaid at St. Margaret's Hope. The size of the equipment, coupled with its cost, have so far placed it beyond my reach, but now the very thing has been invented in the shape of an electronic megaphone. The makers do not publish the results of any



B.R.S. test and so I cannot say whether the trade name of Jericho which they have given the appliance has any significance for demolition contractors. It weighs only 7lb and a bit and has a range of 500 yards. Plumbers and bricklayers would find it a godsend and it should prove invaluable for porters on the underground or for use in conjunc-



The new Cone Wall Light, designed by E. Cooke-Yarborough and Ronald Homes

tion with deaf maiden aunts. The only trouble is that if these weapons become too popular it may be necessary for everyone to have one. At any rate it should stimulate the sale of ear plugs.

THE ROYAL GOLD MEDAL

If precedent is followed the Royal Gold Medal should go to a foreigner next year. This is likely to place the selection committee in an embarrassing position. There are three obvious claimants. Le Corbusier has recently been recognized and decorated by the French State and whatever the outcome of the absurd lawsuit which recently finished none can say that he has not had a very great influence on contemporary architecture. Dr. Gropius is about to be 70 and has recently retired. He is a great man and well worthy of the honour. Professor Thomsen of Copenhagen, has recently vacated his chair, and has not he, through his teaching, had great influence on modern architecture? Denmark, whose modern architecture and industrial design we all so much admire, has never received the Royal Gold Medal. Clearly all three of these gentlemen cannot have the medal in 1953, but there is a strong case for awarding it to each of them. I do not envy the committee in having to choose.

CONTEMPORARY LIGHT FITTINGS

The Building Centre's Christmas show of light fittings is very gay and gives those interested the first real chance of comparing side by side the work of the various designers in this field. I find that illustrations of light fittings are most misleading and I think that some manufacturers have realized this because they now give dimensioned drawings in their catalogues as well as photographs. The fittings shown range from variations on the traditional type of table lamp with pleated shades to the latest Italian type fittings which are merely bulbs covered with the minimum reflector on a flexible mounting. These fittings are stable enough, but I imagine that the flexibility which enables them to wobble when touched would not endear them to some

people. The prices, even allowing for the fact that they include purchase tax, are high. Only the new Cone fitting seems to be reasonably cheap and then it is so simple that it makes one wonder why it costs so much. On the whole I think that the foreign fittings from Scandinavia and Italy come off second best to the latest British designs which, it must be admitted, originally owe a certain amount to foreign inspiration. We can at any rate no longer complain about the shortage of good contemporary light fittings available in this country. I understand that most of the fittings can be bought at the big stores in the West End, although you may have to dig among the velvet, gilt, and beads to find them.

WITHIN FOUR WALLS

The new dispensation which allows the licence-free building of houses up to 1,000 square feet reminds me of a story I heard from an architect who submitted a plan of a house for a private client only to be told that he had exceeded his fifteen hundred by three feet. "Oh no," he replied, "on the contrary. I am entitled to an extra 17 square feet since your figure is exclusive of the plaster on the walls. It is the internal brick-face that matters in measuring the superficial floor area." He was right, of course, and got his plan passed. Remember this my children when you get out your 1,000 square foot bungalow plans—subject to his Lordship's direction, as the barristers say.

ABNER



Photo J. M. WOOLTON

St. Stephen's Church, Vienna, re-roofed after war damage with coloured tiles to replace the original

F

NEWS OF THE WEEK

Licence-Free Houses

N.F.B.T.E. Comment

The National Federation of Building Trades Employers, commenting on Mr. Macmillan's statement, have this to say:—

"It will go a long way towards solving the big problem facing house-builders to-day—the problem of costs—for the house-builder will now have a chance to organize his work ahead on economical lines, and this is bound to be reflected in the price of small houses. The Minister's decision also provides better opportunities for competition between builders which, as pre-war experience showed, is a vital factor in keeping costs down.

"The two sections of the community who will perhaps benefit most from the change are young married couples whose means are limited and, because their families are small, do not require a large house, and the older couples who are nearing retiring age and so far have hesitated to move from large houses in which they brought up their families to smaller houses and bungalows because of the difficulties and uncertainties about licences."

Federation of Registered House-Builders

Presidential Nominations

At a meeting of the Council of the Federation of Registered House-Builders held at 82, New Cavendish Street, London, W.1, on November 27, 1952, the Council nominated the following to hold office in 1953: *President*: Mr. H. Spencer, J.P. (Preston). *Senior Vice-President*: Mr. R. Whittington (Southampton). *Junior Vice-President*: Mr. George Reed (London). *Immediate Past President*: Mr. C. Douglas Calverley (Leicester). The annual general meeting of the Federation will be held on January 8, 1953.

Central Land Board: Powers of Purchase

The Town and Country Planning Bill, 1952, now before Parliament, proposes among other things that development charge shall be abolished for development begun on or after November 18, 1952 (the date the Bill was introduced), and that the Board shall cease to acquire land under Section 43 of the Town and Country Planning Act, 1947, and Section 40 of the corresponding Scottish Act, except where before November 18 a Notice to Treat has been served in respect of a compulsory purchase order already made by the Board or a contract has been entered into by the Board for purchase of the land by agreement.

During the period until the decision of Parliament on the terms of the Bill is known, the Board do not propose to consider any new acquisitions of land under the Acts.

Opening of Hatfield Technical College

His Royal Highness the Duke of Edinburgh opened Hatfield Technical College on Tuesday, December 16.

This College, built at a total cost of about £750,000, and the first of its kind ever to be established in the county, was started soon after the war and because bricks and steel were very scarce the architects, Messrs. Easton and Robertson, devised a special system of pre-fabricated construction which allowed for economies in material and enabled much of it to be prepared "off-site." One of the consultants in this work was Mr. F. J. Samuely.

External painting has been kept to a minimum to reduce maintenance costs and both the equipment, which cost about £100,000, and the fittings of the College were carefully considered as part of the design and represent the most up-to-date technique.

The front of the College is embellished with a sculpture relief by Barbara Hepworth and a panel by Trevor Tennant. Inside the building are two pictures by Ben Nicholson and a bronze by Reg. Butler.

The 90-acre site, generously given by Mr. A. S. Butler, Chairman of de Havillands, is large enough not only to accommodate the present buildings and the ample playing fields, but will also allow for additional buildings, the foundations of which are already laid. These additions will include provision for advanced science work including domestic science. In addition, as part of the design, a Technical Secondary School is now in the course of construction.

Before the college was built, many students in Hertfordshire had to travel to London for training and de Havillands had to provide training for their employees in their own works. Much of this training, especially work in preparation for examinations can now be provided by the College. The first students were admitted in September last and in the first term there were about 1,200 attending.

Training in Aeronautical Engineering at a very high level is one of the main features of the college, and employees from a number of aircraft companies in different parts of the country are expected to attend. A hostel to cater for these students is being planned.

The College caters for both day and evening students and consists of five Departments: Technical and Design Engineering; Works and Production Engineering; Building; Commerce and Retail Trades; and the Department of Social and Professional Studies. Facilities are also available for the study of physics and chemistry to an advanced level.

In the engineering departments, students may take diploma courses and ordinary and higher national certi-

icates; there are also facilities for the examinations of the Royal Aeronautical Society and special attention is being paid to the establishment of courses for aircraft maintenance engineers and aircraft electricians. Facilities are also available for machine shop engineering, sheet metal work, welding, the practice of heating and ventilating engineering, boiler house practice and radio servicing.

An important function of the Departments of Engineering will be the provision of special short courses in foremanship.

The Building Department will include workshops for carpentry and joinery, brickwork, plumbing, painting and decorating. Practical classes in welding and lead-burning are available, together with a course on builders' quantities. Provision is also made for craftsmen of mature age to attend courses in foremanship.

In the Commerce Department, facilities are offered for intensive secretarial training and for the varied examination requirements of many branches of the retail trades. In the Social and Professional Studies Department there is a wide range of courses leading to Civil Service, local government examinations, the examination qualification of professional bodies, the study of the drama, and physical education. In each department emphasis is placed upon the importance of managerial studies.

The Duke of Edinburgh, in his opening speech, said: "Mr. Chairman, Ladies and Gentlemen, I am most grateful, Sir, for your invitation to be present here to-day at the opening of this College. It gives me, amongst other things, an excellent opportunity to offer my congratulations to the Hertford County Authorities on their enterprising policy which has resulted in this great achievement and I am particularly pleased to see that you have made proper provision for games and sports, including a running track. When these are completed they will be of enormous benefit to the whole neighbourhood, as well as to this College, and I am also delighted to hear that the Hertford County Playing Fields Association, as well as the National Playing Fields Association, has been a considerable help to the County authorities in this connection which is another very great example of the co-operation between the Statutory authorities and voluntary organizations.

"Now the opening of this College, I believe, will give very great encouragement to British industry which is, at the moment, facing considerable difficulties. It is all very well to understand the problems which face this country and to have deep theories to their solution, but it is quite another matter to have the foresight and the courage to embark upon a scheme to do something practical about it.

"The College buildings that I have seen to-day are magnificent and the

lecture rooms and equipment are first class and I am quite sure that the teaching staff are of the same high standard. But I would remind the Governors that it needs something more than fine schools and good teachers to educate skilled technologists and practical scientists. If the students are to be of any real value when they leave here some way must be found to foster in them an adventurous spirit and flexible mind. Without that, Sir, we might just as well convert this College into an automatic computing engine factory.

"The characteristic of all the great periods of English history has been the nation-wide sense of confidence and adventure which went, at the same time, with the feeling of personal service to the Sovereign. These islands are now at the centre of a vast family of nations. Let it never be said that Great Britain became the poor relation of the British Commonwealth in our time. No amount of talk will prevent this happening. Hard work and imagination is our only chance and I would ask the students to remember two things when they leave here to earn their living. First, always look upon your work as your personal contribution to the welfare and prosperity of your country; secondly, you will only do your best work if your heart is in it.

"I wish you all, Governors, teachers, students, every good fortune for the future and may your work here and later more than justify the building of this College. And so now it gives me very great pleasure to declare this Hatfield Technical College open."

COMING EVENTS

Royal Institute of British Architects.

December 31 and January 2 at 3 p.m. Two informal illustrated lectures for boys and girls on "Huts, Houses and Building Stones," by Hope Bagelal, D.C.M., F.R.I.B.A., at 66, Portland Place, W.1. Applications, marked "Christmas Holiday Lectures," to the Secretary, R.I.B.A.

ANNOUNCEMENT

Mr. G. A. Halse, A.R.I.B.A., is now practising at the Hermitage, Vicarage Road, Sidmouth (Tel.: Sidmouth 464), where he will be glad to receive trade catalogues, etc.

CORRECTION

In last week's issue the name of the photographer on page 737 should have read F. W. de Almeida Mota.

CHANGE OF ADDRESS

The London (City) offices of the Central Land Board and War Damage Commission have now moved to City Gate House, Finsbury Square, E.C.2 (Telephone Monarch 6011).

Previously the Central Land Board were at 9-13, King William Street, and the War Damage Commission at Equitable House, 45-51, King William Street, E.C.3.

Mr. Geddes Hyslop, F.R.I.B.A. has moved to 5, Canonbury Place, N.1. Canonbury 3548.

New Soil-Boring Machine

A new soil-boring machine which can be mounted on a lorry or trailer has been developed at the Road Research Laboratory. The machine is a complete unit, powered by its own engine, and it will drill clean boreholes up to twenty inches in diameter and sixteen feet deep in most soils. The boring bar can be brought from travelling to working position in one minute and it will bore vertical or inclined holes in a wide range of soils at a rate of about one foot a minute.

The machine can be used for making test bores when investigating sites for roads and buildings. It can also be used in place of a pile-driver when short piling is needed, in providing house foundations in clay soils, for instance. The machine drills the series of holes required and the piles are then cast by filling the holes with concrete.

Mechanical Details

The machine is a complete unit powered by its own air-cooled, twin-cylinder diesel engine developing 7 b.h.p. at 1,200 r.p.m. The chief feature of the machine is a hollow lattice mast 9 in square, which can be raised from its sloping travelling position to a vertical position by means of a pair of feed screws controlled by a friction clutch. The main pivot is formed by trunnions mounted on the outside of a gear box attached at the lower end of the mast.

The boring bar is rotated by passing it through a central square hole in a gear wheel controlled by a second clutch. The bar is able to slide through this gear wheel and is steadied at its upper end by a bearing mounted in a raising which is free to slide inside the mast.

The boring bar is attached to an endless chain which passes over a free sprocket at the top and a driving sprocket at the bottom of the mast. The bar is raised by power but may be lowered either by power or by gravity with a hand-brake to control the feed. Driving shafts, for rotating and lifting, have been arranged co-axially with the main pivots to permit boring with the mast inclined. A reversing gear gives change of direction to all the motions controlled.

The normal speed of rotation of the boring tool is between 50-100 r.p.m. and the average lifting velocity is approximately 3 ft per sec.

Boring Tools

Three types of boring tools have so far been developed. The first has a circular plate welded to a vertical stem, the plate having two sectors removed and the leading edges bent down to give a slight lead. Separate cutting edges tipped with a hard material are provided for bolting to these leading edges. The sector openings are covered with hinged flaps which only allow the soil to pass upwards through the tool. This tool is satisfactory in most soils but the cut-away portions will only allow small stones to pass through. To

overcome this difficulty a second tool with a two-start helical form has been made. This tool is very suitable for large, loosely compacted gravels but tends to ride over large stones if they are tightly embedded. A third tool was therefore designed to deal with such stones. It is fitted with two spikes about 4 in long at about two-thirds of the radius out from the centre, and the circular path of these spikes loosens large stones which would otherwise not be disturbed.

Christmas Message to Builders from The President of the N.F.B.T.E.

Mr. Ian Robertson sent his best wishes for Christmas and New Year to all members of the National Federation, and went on to say that 1952 had been a year of achievement by the Building Industry and that the Government are doing all they can to help the industry and to make the housing programme more flexible.

Mr. Robertson said that the shortage of materials had affected costs and that cement, steel, bricks and timber were among the "biggest headaches," but that the Minister of Materials is shortly to make an announcement on increased supplies of steel to be made available for their use. His remarks on Training and on Building Costs were as follows:—

Education and Training

The most important aspect of our work in this sphere has been concerned with the preparations for taking over the registration of apprentices from the Building Apprenticeship and Training Council. It has not been easy to devise a workable and acceptable plan but I feel sure you will agree that it is better that the industry itself should take on this job rather than leave it in the hands of a Government department. The date fixed for the change is January 1 next, and as we have always claimed that we can run our own affairs more efficiently than the State we now have a good opportunity to prove it. I earnestly appeal, therefore, both to you and your Regional and Local Association officers to go all out to make the scheme we have decided upon work with the utmost smoothness and efficiency from the very first day of its inception.

Meantime the recruitment of young apprentices continues. We have been making sound progress and the initiation during the year of our comprehensive scheme for the award of prizes and scholarships has done much to help; but here again it is with the Local Associations that the real effort begins and ends and it is to them we must continue to look if the industry is to be assured of adequate numbers of craftsmen in the years to come.

Building Costs

During 1952 there has been a noticeable improvement in productivity on

the sites and it is only fair that this should be acknowledged. On the other hand, in February next the industry will be paying another 2d an hour under the sliding scale agreement and in April will have to find the additional contributions for the extra week's holiday with pay granted by the Industrial Disputes Tribunal a month or two back. These items will cost the industry another £20m. and £7m. or so a year respectively and the public will be anxious to know what we are going to do to prevent these added commitments increasing still further the already high cost of building. Unlike most others, our industry is very much before the public eye. We work in the streets and in people's homes and our shortcomings, though probably less than those of other industries, are naturally more apparent. The public, drawing their own conclusions from what they see, will not willingly submit to these additional charges without some evidence that a determined effort is being made by all concerned to keep the cost of our services down. Employers recognize this, but unless more operatives do so the outcome can only mean widespread unemployment through the refusal of building owners to put work in hand. The situation is not helped by the operatives' submission of a claim for another 6d an hour on the basic wage. I do not wish to say more about this here other than to point out that, taking into account the sliding scale increase, this is entirely out of line with recent pay awards in other industries and this will be a vital point to be borne in mind by the employer members of the N.J.C. when the claim comes before that body next month.

I suggest, therefore, that our tasks for 1953 are clear. By efficient job organization, the use of mechanical equipment wherever possible, bonusing and even better output, we must strive to reduce building costs without impairing the quality of our service. We must continue to urge greater freedom for builders from licences and controls and to press strongly for more and more materials. At the same time we must conserve the materials we do get and encourage the co-operation of our men in eliminating waste. If, during 1953, we make an all-out effort to do these things and concurrently continue to recruit and give sound, practical training to our apprentices then 1953 will be a year of even greater achievement than the one that is now nearly ended.

President of L.M.B.A.'s Message

In a Christmas and New Year message to his Area Chairmen, which he has asked them to pass on to their members, the President of the London Master Builders' Association, Mr. D. E. Woodbine Parish, says:—

The important part which the building industry has to play in the well-being of the country cannot be over-emphasized, and I am sure that you

and all your members appreciate the vital need to maintain the industry at the highest level of efficiency.

The position with regard to apprentices still gives cause for concern, and I am confident that members of your Area will continue to do their utmost to improve the present intake by every possible means.

The L.M.B.A., in its eightieth year, has, by the introduction of its Educational Awards Scheme and Medal presentations, done much to re-establish a feeling of responsibility towards, and pride in, our great industry, and I hope that in Coronation Year we shall see a great many new entrants to the industry. We must welcome them and train them to a high standard of service. This should be our constant aim and purpose.

IN PARLIAMENT

Freedom Under 1,000 Sq Ft

A further relaxation of control on house building was announced on Dec. 16, when Mr. Macmillan, Minister of Housing and Local Government, stated that from Jan. 1 it was intended to allow any individual to build a house of not more than 1,000 sq ft and so long as it did not consume more than the appropriate quantity of softwood, and that builders will be permitted to build up to 12 houses at a time. In both cases the permission is subject to planning permission and byelaw consent.

The Minister said that the success of the Government's housing policy, in terms of houses completed, started, and under construction during the current year made this further step forward possible. The Government had always been anxious for private enterprise to supplement and support building by local authorities. In giving effect to the new decision, local authorities were being asked to issue licences automatically to both classes of applicants; and arrangements were being made, through the regional officers, to secure that the flow of private house building did not prejudice the claim of houses for letting on the labour and materials available.

The announcement aroused some Opposition clamour. Mr. Herbert Morrison described it as "possibly disastrous," since if there was to be complete freedom for local authorities or private enterprise to build as many houses as they liked the quota for letting would be damaged; and the lifting of controls might prejudice work on vital factories, hospitals and schools.

Full particulars with regard to the new regulations concerning the building of houses up to 1,000 sq ft, and information on licences for houses of between 1,000 and 1,500 sq ft, are given in Ministry of Housing and Local Government Circular No. 93/52, obtainable through any bookseller, or direct from H.M.S.O.

Mr. Macmillan's answer was that the licensing system was not being abolished. It was being kept, because it was necessary to control timber and other scarce materials. He intended to exercise control through the regional system, as he had done during the past year, when instead of the former annual allocation work had been permitted in each region according to the labour and materials available. He would be able to protect to the full the council programmes, on which they must rely for much the greater contribution.

The other objections raised appeared to be answered by the Minister's figures of the year's work on housing. On the basis of the past 11 months he forecast that completions this year would be about 235,000 houses, against 195,000 in 1951. He hoped that the number built for letting would be about 202,000, which was an increase of 29,000 on 1951. The number under construction in mid-December was 275,000, so M.P.s could draw their own conclusions about the likelihood of their being a good result next year if the weather was not too unfavourable. He also said, in answer to another question, that applications for houses between 1,000 and 1,500 sq ft would be considered on their merits by local authorities.

Westminster Site

The Minister of Works was questioned about the development of the site in Westminster bounded by Horseferry Road, Monck Street, Great Peter Street and Marsham Street. He stated that the Labour Government decided in 1946 to acquire the site for the erection of Government offices. The cost of the first section of the office building, to be erected on the part of the site nearer Horseferry Road, which had been acquired and cleared, was provisionally estimated at £1,800,000. Work on the basement was proceeding, but in view of the economic situation he could not say when it would be possible to build the superstructure. (Dec. 16.)

Coronation Annexe

The annexe to be built outside Westminster Abbey for the purpose of marshalling the Coronation procession has aroused much discussion, and one aspect of this was embodied in a question to the Prime Minister by Brigadier Medlicott—Why build this temporary annexe when Westminster Hall, in which the marshalling of such processions took place for 700 years, is available? Mr. Churchill replied that to use Westminster Hall for marshalling the procession, he was advised, would be less convenient and no less costly than to build an annexe at the west end of the Abbey. He was also informed that if the Coronation ceremony was to be carried out under modern conditions with the dignity and precision of execution required, the whole process of marshalling the

ceremony must be as close to the west door or the Abbey as possible. (Dec. 17.)

Fog Filters

The recent heavy fog has apparently been a severe test of the air-conditioning plant built into the new House of Commons. A reply by Mr. Molson, Parliamentary Secretary to the Ministry of Works, on a general complaint, includes a passage stating that there were particular difficulties during the fog period, and it was necessary to clean the filters of the plant each night instead of once a week. Even so the filters became dirty before the sittings ended, and the air in the House might then have been less fresh than usual. (Dec. 16.)

Apprentices' Registration Scheme

Changes in the registration of apprentices in the building industry have been announced by Mr. Eccles, Minister of Works. He stated that since the National Joint Council for the industry put into operation a national apprenticeship scheme in November, 1945, indentured apprentices had been registered with the Building Apprenticeship and Training Council. The time had arrived when the industry was able to undertake this work, and from January 1, 1953, all new apprentices would be registered with the National Joint Apprenticeship Board. Apprentices now registered with the Building Apprenticeship

and Training Council would, under the new arrangements, be given the option of transferring to the industry's registration scheme.

The Building Apprenticeship and Training Council would continue its advisory work, and he thanked the council and its chairman, Sir George Gater, for their valuable work over a number of years. An adequate intake of apprentices and the furtherance of the opportunities for higher education, particularly by the award of scholarships, were two of the most important matters which the council would still keep under review. He was confident that the National Joint Apprenticeship Board, on which both sides of the industry were represented, would continue their valuable work with vigour and enthusiasm. (Dec. 17.)

Factory Building

The progress of factory building is indicated by figures covering the period January 1, 1950, to September 30, 1952, which were given by Mr. Henry Strauss, Parliamentary Secretary to the Board of Trade. These showed that the total number of new factories and extensions completed—all projects exceeding 5,000 sq ft—was 2,408, and the total area 47,700,000 sq ft. The yearly figures were: 1950, 845 factories, 19,700,000 sq ft; 1951, 937 factories, 17,600,000 sq ft; and 1952 (up to September 30), 626 factories, 10,400,000 sq ft. Another reply by the Minister on the same day gave the additional information that in the

development areas the number of new factory buildings (including extensions) under construction on October 30 was 270, compared with 314 a year earlier, but the area under construction was nearly 4,000,000 sq ft more this year than last. (Dec. 16.)

Unfit Houses

The number of houses unfit for habitation will become capable of accurate assessment in future. Mr. Macmillan has stated that he is asking all local authorities to submit returns under Section 5 of the Housing Act, 1936, after the end of the year, as they were required to do before 1939. The requirement was dropped during the war, but many authorities had continued to supply the information. (Dec. 16.)

Use of Common Land

Major Beamish asked the Minister of Housing and Local Government what consideration was being given to the use of common land for major housing projects, which would greatly decrease the steady loss of good agricultural land for housing. Mr. Macmillan referred him to statements by the Minister of Agriculture that the whole future of common land was being considered. While the object chiefly in mind was the contribution which common land could make to national food supplies, the possible use where appropriate of some common land for other purposes, such as housing, was not being overlooked. (Dec. 16.)

C O R R E S P O N D E N C E

L.M.B.A. Technical Information Service

To the Editor of A. & B. N.

Sir,—I feel bound to express a little disappointment at the rather depressing note in your comment about the L.M.B.A. Technical Information Service on page 685 of your issue of December 11.

You seem to emphasize that whilst the Service continues to be used by members there is no increase in the number of enquiries, and you state that the questions are in the usual run of things, many of them being covered by Government publications. You then refer to the comparatively small number of questions asked under our scheme.

In actual fact the precise wording in my letter was "Enquiries made . . . remain constant in number—they certainly show no sign of falling off—and still average something like one per working day." This, I would suggest to you, indicates that the Service is still in active operation and, as I have said, quite definitely shows no sign of falling off in its use.

It is of course a fact, as you say, that many builders use direct both the Building Centre and the services of the Technical Officers at the Ministry of Works, but I would suggest that their interest in these two sources of information and advice has been stimulated very substantially by the operation of our Technical Information Service. I am quite sure that its functions have caused builders to realize more than they did previously the many sources which are available to them in rendering assistance in the problems which they meet in their day-to-day work.

In regard to your comment that many of the questions asked are covered by Government publications, the Ministry have themselves agreed with us that a not unsubstantial part of the benefit of our Technical Information Service is that it has created a kind of two-way traffic. What I mean by this is that the type of question asked by our members has shown more clearly to the Ministry the type of information that is wanted, and accordingly they have issued their publications directly designed to meet those points. The Ministry are as satisfied as we are ourselves with the

success of this scheme, which is still continuing actively and which I feel will tend to increase in activity—it is certainly not decreasing in any direction whatever.

I am, etc.,
G. H. A. HUGHES,
Director.

London Master Builders' Association

Property and Housing: The Public Deceived

To the Editor of A. & B. N.

Sir,—This Association is frequently approached by members of the public with complaints against supposed members of our professions whom they have commissioned, or with whom they have become involved in transactions connected with property or building. The matters generally complained of are misrepresentation, negligence, and demands for excessive fees.

Investigation usually discloses that the person complained of is not a *bona*

fide practitioner at all, but a self-styled "Surveyor" or "Architectural Surveyor" often using designatory letters bestowed by some unrecognized body, which, although worthless, have succeeded in giving the impression that their user is a properly qualified professional man. Only too often the damage done to the client is irreparable; for as the law stands, unless fraud can be proved, there is no legal redress. This form of exploitation has become so widespread that it is necessary to warn the public in their own interest, that before commissioning an "Architect" or "Surveyor" they should make sure that the person in question is a member of one of the recognized professional bodies, and thus subject to a code of professional conduct and a standard scale of fees.

Another growing practice, designed to trap the uninformed, is that of builders and people calling themselves "House Designers" or "Architectural Surveyors," who advertise to the public under such headings as "Your House Designed," "Plans Prepared." It is important for the public to realize that the only person who may safely be entrusted with these duties is a properly qualified practitioner who, like members of the legal and medical professions, is strictly debarred from advertising. The very term "Architectural Surveyor" is an attempt to evade the provisions of an Act of Parliament which restricts the title of Architect to the qualified man.

Self-styled "House Designers" and "Architectural Surveyors" usually possess no qualifications at all, and in any case are not bound by professional codes of conduct and the legal obligations to client that govern the architect. The objections to the builder both planning and erecting a house are threefold: (i) the plans tend to be stereotyped, (ii) the appearance is often unpleasing, (iii) there is no proper guarantee of the quality of the building. With regard to the last it is important to remember that the architect not only plans and designs the building in accordance with the client's personal requirements, but also supervises the erection, thus ensuring that workmanship and materials are of the required standard.

The house designed by an architect is an efficient house, and the very moderate fee he charges is more than offset by the increased durability and amenities of the building, and by its higher market value.

Members of the public seeking guidance on the employment of an Architect or Surveyor should apply to such bodies as the Royal Institute of British Architects, the Royal Institution of Chartered Surveyors, or ourselves.

I am, etc.,

R. F. ISTD,

General Secretary, The Incorporated Association of Architects and Surveyors, 75, Eaton Place, London, S.W.1.



HOUSE IN KENDAL

Architect: E. DONALD HAIGH, A.R.I.B.A., A.M.T.P.I., Dip.T.P.

THE house is situated in a residential district on the outskirts of Kendal. Access is from the north and the site is almost level.

The building line is some 60ft back, so that in order to place the garage in front of the house, at the same time leaving as much space as possible on the south, the house was planned at an angle to the road. By placing the garage at another angle, it was found possible to design a drive necessitating only one reverse when leaving the garage. A large hawthorn tree was retained as an entrance feature.

Plan

Advantage has been taken of the southern aspect by placing the main rooms on the south side, away from the road. The lounge runs the full width of the house at the west end and receives afternoon and evening sun all the year round. The dining room and kitchen are planned en suite for easy service of meals: the kitchen is screened by the chimney breast, while the solid fuel cooker provides background heat in the dining room. The hall and staircase are economical, yet give an effect of spaciousness, enhanced by the wired glass balustrade. Of the four bedrooms, three have built-in wardrobes and generous linen and storage cupboards are provided. The garage and fuel store can be approached under cover from the back door.

Construction

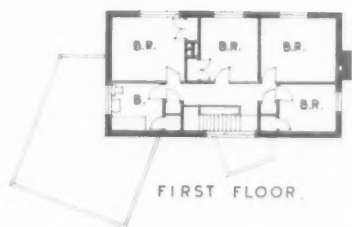
The house is built with 11in cavity brick walls, rough-cast externally. Internal partitions are 4½in brick and 3in breeze block. Some walls of local limestone random rubble have been used. The house is roofed with Westmorland Green slates; the outbuildings have a reinforced concrete roof covered with built-up roofing felt. The galvanized standard metal windows and two special types are in timber sub-frames.

Finishes

Externally the walls are finished with white Snowcem and paint work is turquoise. Internally the floors to the lounge and hall are covered with oak blocks, while the kitchen and dining room are finished with green marble Semastic tiles. Flush doors are used throughout, those on the ground floor being wax polished. The lounge fireplace surround is of polished green slate, with oak mantel and bookshelves.



SITE & GROUND FLOOR PLAN.



FIRST FLOOR.



SECTION.

General Contractors : Messrs John R. Lyons and Son, Kendal.

Sub Contractors :

Slater : R. Tierney, Kendal. Plumber : W. Nicholson, Milnthorpe. Plasterers : Messrs Elliott and Sedgwick, Kendal. Slate, porch paving, green stone hearth : The Broughton Moor Green Slate Quarries Ltd., Coniston. Wood Block and Sematic Flooring : Messrs J. A. Hewatson Ltd., Hull. Fireplace mantel and shelves : Messrs S. and R. Park, Kendal. Metal Windows : The Crittall Manufacturing Co., Ltd. Flush Doors : The Merchant Trading Co., Ltd., London. Door Furniture : Messrs W. and R. Leggott, Bradford. : Messrs N. F. Ramsay and Co., Ltd., Newcastle on Tyne.





Entrance to Teaching Block, West

WORK IN PROGRESS

THE MARGARET McMILLAN TRAINING COLLEGE, BRADFORD

ARCHITECTS: CLYDE YOUNG & BERNARD ENGLE, F.F.R., I.B.A.

CHIEF ASSISTANT: R. COULTER CLARK, A.R.I.B.A.

CONSULTING ARCHITECT:

W. C. BROWN, Dip.Arch., A.R.I.B.A., Dip.T.P., A.M.T.P.I., BRADFORD [CITY ARCHITECT

THE Margaret McMillan Training College for Nursery School Teachers is the first College in this Country built from scratch since the beginning of the last war. The Margaret McMillan Memorial Fund started to collect monies to erect a Memorial to Margaret McMillan, who started the Nursery School movement in this country, working in and from Bradford. It was therefore only befitting that the Memorial should be erected in Bradford. The City Corporation of Bradford gave the site to the Margaret McMillan Memorial Fund and the Ministry of Education promised to give a loan, but it was soon recognized that a College on this scale could not be maintained by private means. The Ministry of Education was prepared to carry on what the Margaret McMillan Fund had started.

From the date the Ministry took up the reins each Inspectorate of each teaching Faculty was asked to criticize the plans and state how they would like the special classrooms or teaching equipment designed and fitted, as it was the Ministry's wish to create a Teaching College which would incorporate all experiences gathered in recent years and be really the last word in this class of building. In the final development of the plans the Architects' Department of the Ministry of Education for the Training College has given from time to time most valuable guidance and has been extremely helpful.

The site the City of Bradford selected for the College

comprises roughly of 12 acres. It is not far from the Town Centre, and is intersected by three roads and has a fall in levels of about 20 feet.

It was decided to separate the Teaching Block from the Residential Block entirely so that the students would "get away" from the Teaching rooms when not working.

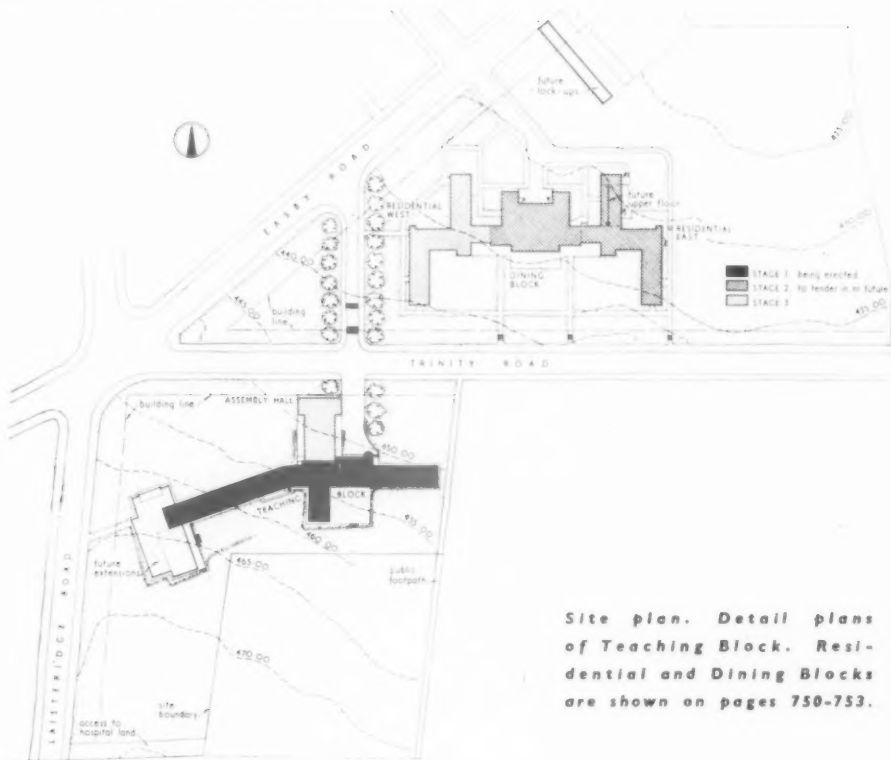
The site portion north of Trinity Road, the highest part, was chosen for the Teaching Block. The northern part, lower and triangular, bordered by two roads of which only Easby Road is a main road, will be used for the houses of Residence.

The Centre Block contains a kitchen and Dining Hall for up to 250 students. Left and right from the Dining Hall Block are the Residential Blocks attached, comprising teachers' accommodation and study bedrooms for 150 students with the necessary ancillary rooms. There is provision for easy addition to the Residential buildings. The Contract for the Dining Hall Block and Residential Block East has been accepted by the City of Bradford and it is hoped that the actual work for this Phase II will start before Christmas, 1952.

The plans for the Residential Block West and the Assembly Hall form Phase III, which is scheduled to commence in 1954.

The building work on the Teaching Block on the North side of Trinity Road was started in December, 1951. A

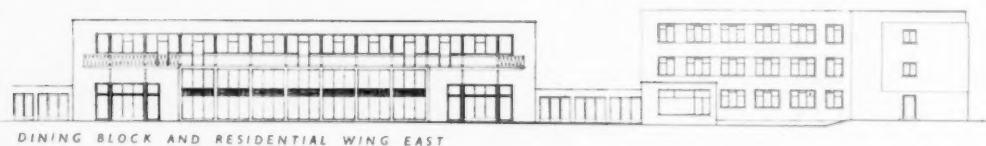
[Continued on page 756]



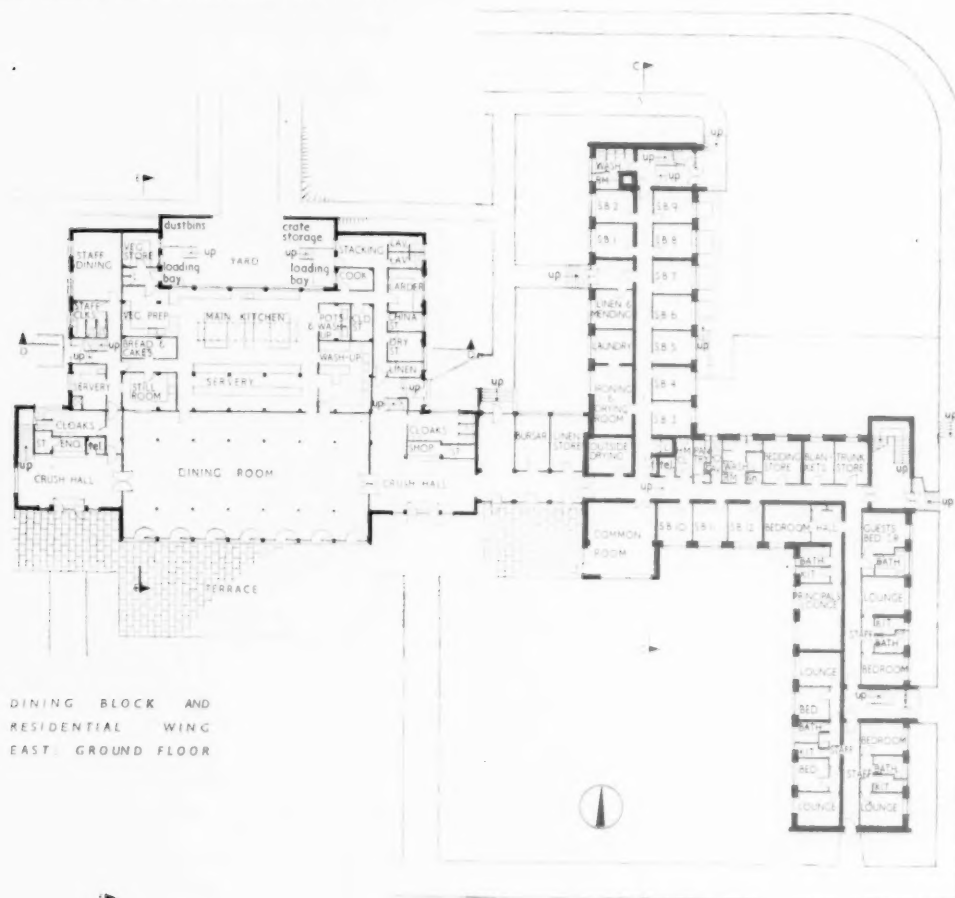
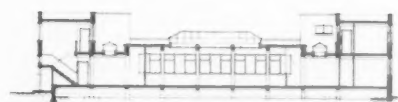
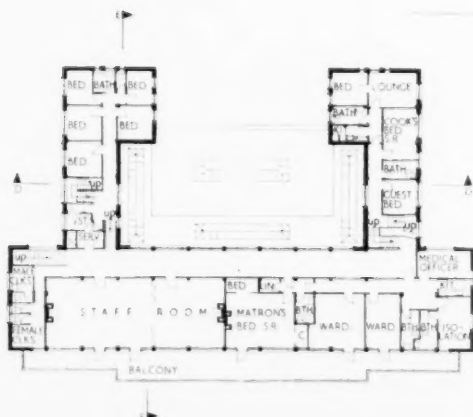
Site plan. Detail plans of Teaching Block. Residential and Dining Blocks are shown on pages 750-753.



The Teaching Block, South Elevation



DINING BLOCK AND RESIDENTIAL WING EAST

DINING BLOCK AND
RESIDENTIAL WING
EAST GROUND FLOOR

DINING BLOCK SECTION D.D.

DINING BLOCK FIRST FLOOR

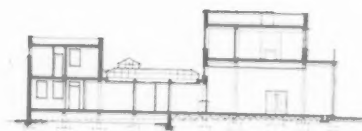


TYPICAL CROSS-SECTION

Margaret McMillan Training College



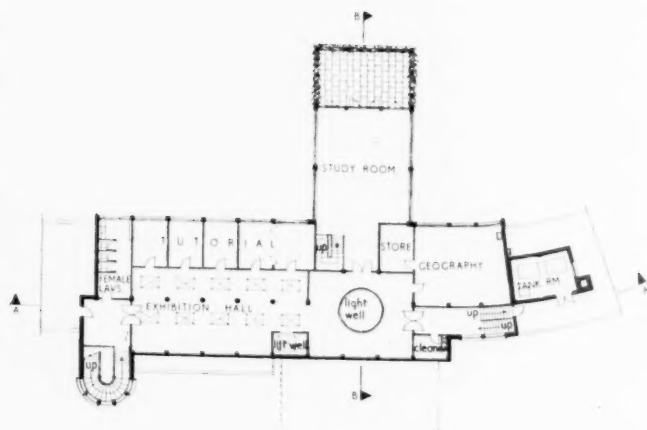
RESIDENTIAL WING EAST: FIRST AND SECOND FLOOR PLANS



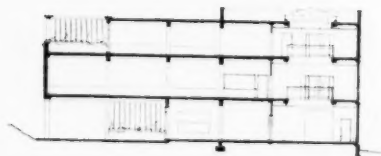
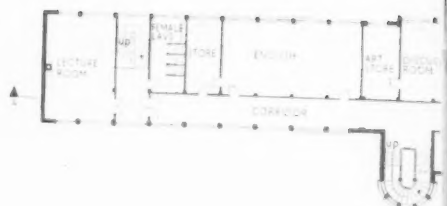
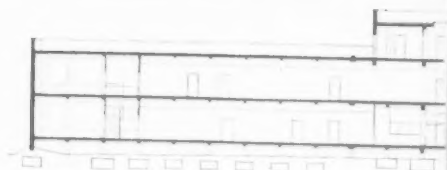
DINING BLOCK: SECTION E.E.



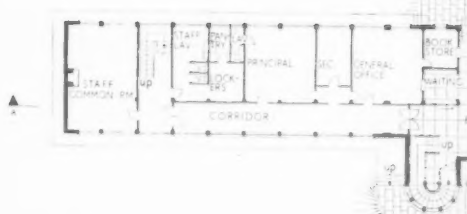
RESIDENTIAL BLOCK: SECTION C.C.

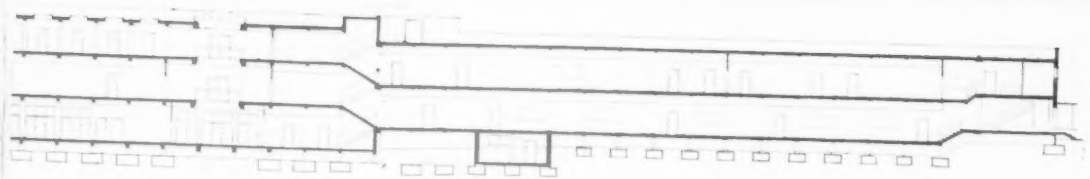


TEACHING BLOCK SECOND FLOOR

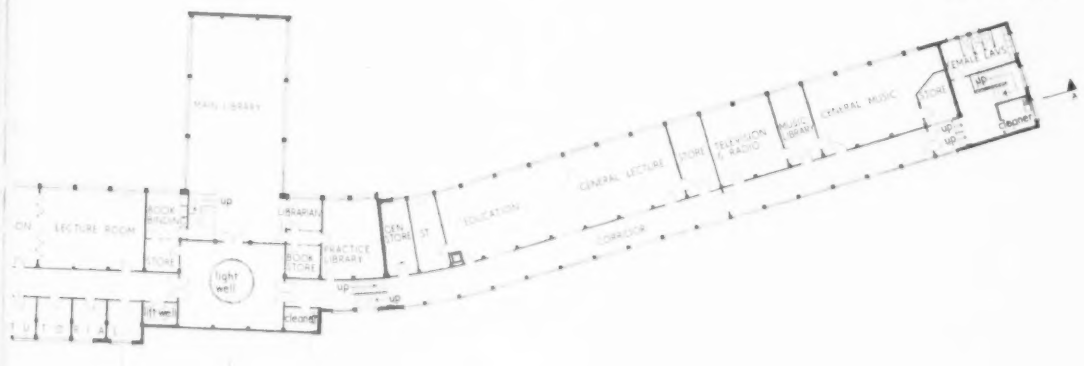


SECTION B B.

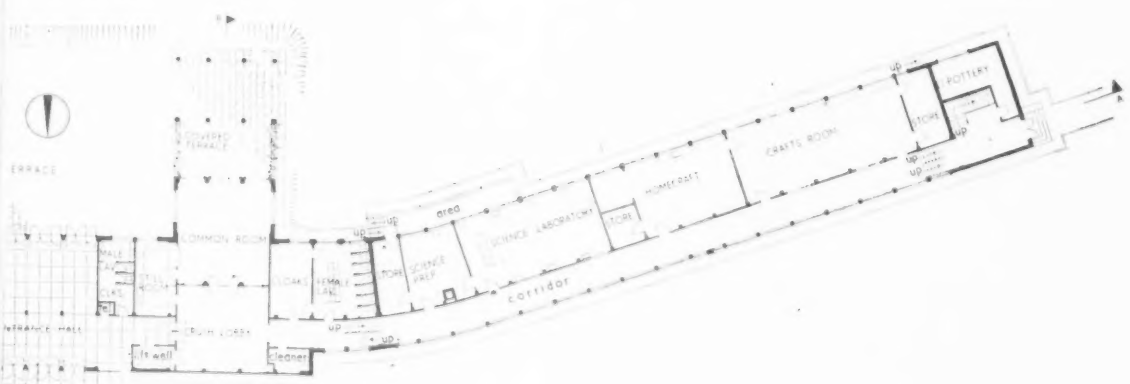
BELOW: SOUTH ELEVATION FROM
THE WEST, DECEMBER, 1952



SECTION A.A.



FIRST FLOOR



TEACHING BLOCK: GROUND FLOOR

Margaret McMillan Training College, Bradford

Continued from page 750

tree-lined pathway, a present from the Women of Bradford, leads from the Residential part up to the Main Entrance of the Block. The Ground Floor left contains only administrative rooms. The classrooms on the right are planned on a very simple layout system, having the corridors facing north and the classrooms facing south-east. In order to obtain a strict south-east aspect for the Main Teaching Rooms the right wing curves south, thus creating a slight movement in the extended elevation, avoiding a long rigid front.

The whole of the second floor contains the various Class-rooms adapted to the education of Nursery School Teachers with an ample sprinkling of small Tutorial rooms where three or four students can meet in discussion groups.

The third floor has a large top-lit exhibition hall, a Geography Room and, jutting out south to the garden, a Study or Quiet Room with a large balcony in front. Access to this study room comes from a main hall, top lit, with a centre well, which allows the light from the circular glazed dome to penetrate right down to the Crush Lobby on the Ground Floor.

The Study Room on the top floor has a sweeping view across the country and town and is connected by a small open stair with the Main Library underneath. The walls of this large room to the East and West are completely glazed, interrupted by structural columns only. The south side of the Library is walled up and covered with bookshelves, and has as a centre piece a large bas relief to give a focal point to this rather important room, which will be dedicated to the Margaret McMillan Memorial by the British Teachers Union.

The Crush Lobby on the right-hand of the Main Entrance is the hub of the building, from here one can look up to the glass dome on the third floor. South of this pivotal point we find a large Common Room where students can take their elevenses and afternoon teas—a small kitchen is attached and has a covered terrace and paved space adjoining. North of the Crush Lobby will be the Assembly Hall, which is scheduled to be built under Phase III, with 2,400 sq ft floor space, excluding stage and music practice rooms, the latter being thus entirely removed and insulated from the Class Rooms.

It is possible that Phase IV, the building of a Gymnasium at the extreme right of the Teaching Block, will not be executed for the time being, and the Assembly Hall may be used also as a Gymnasium, at least temporarily, due to the present restrictions on capital expenditure.

The structure of the Teaching Block is basically steel framed on a 10ft grille, which allows prefabricated reinforced concrete floor joists in economical spans.

The Main Staircase, on the left hand of the Entrance Hall, forms a striking feature flanking the Entrance on the north side of the building. The semi-circular staircase is supported by reinforced concrete stanchions which form vertical ribs from Ground Floor up to roof level, introducing a strong perpendicular contrast in the otherwise horizontality of the elevation.

The centre block of the building, which is three storeys high, is walled in a blue-brown brick. The brickwork itself is divided up in 3ft x 3ft 6in panels, one brick course above and one beneath the panel recessed, to give the surface added texture, and by introducing special rebated bricks for the upright divisions.

The side wings are bricked up between the steel frame in a light golden facing brick of a definite contrast to the centre block. To deviate further from the dark brick of the centre building the horizontal pointings will be off-white and the perpendicular pointing will be in the colour of the bricks, thus emphasizing the horizontal.

The windows are framed with a dressing of Empire Stone, the stanchions in between the windows are clad in the same stone so that the windows form one long horizontal unit.

The Quantity Surveyors appointed by the City of Bradford are Messrs. Taylor & Smith, of 3, New Square, Lincoln's Inn, London, W.C.2.

The Main Contractor for the Teaching Block is Messrs. Alfred Robinson, Ltd., of Woodbine Works, Idle, Bradford.

The pre-cast flooring will be delivered by Messrs. Siegart Flooring Co., Ltd.

The metal windows are by Messrs. Faulkner, Greene & Co., Ltd.

The Central Heating by Messrs. Brightside Foundry & Engineering Co., Ltd.

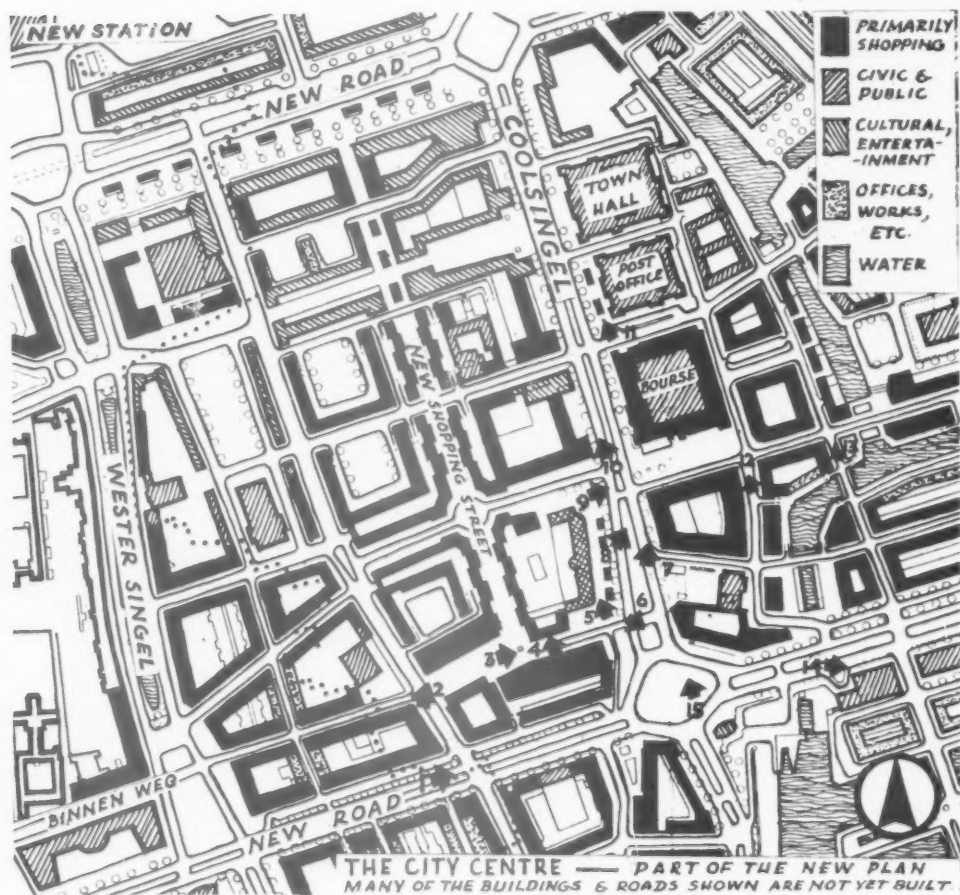
The steelwork by Messrs. Dorman Long & Co., Ltd.



The Carnegie Endowment International Centre, an eleven-storey building near U.N.O headquarters, New York, now under construction.

ROTTERDAM — The Reconstruction of the Inner City

By J. L. BERBIERS, A.R.I.B.A., A.M.T.P.I.



DURING the early years of the war—to be precise, on May 14, 1940—the inner part of the City of Rotterdam was almost entirely destroyed by fire, resulting from aerial bombardment. With the exception of the "Raadhuis," or Town Hall, built soon after the first World War, and a few other buildings including the Bourse, a large contemporary structure completed in 1940, not a single building was left standing in an area of several hundred acres.

A total of about 25,000 houses, 24 churches, 69 schools, 2 theatres, 12 cinemas, and numerous cafés and commercial buildings were destroyed and, furthermore, the sewerage system, and most of the other underground services were put out of action.

Almost immediately afterwards, but before its departure for England, the Dutch Government issued instructions for

the replanning of the City, as the result of which the preparation of a reconstruction scheme was undertaken during the early years of the German occupation. It was, in fact, largely due to the foresight and efforts of the City Planning Authority during the war years, that Rotterdam was able to make such rapid progress in executing its rebuilding plan.

For instance, between 1940 and 1944, an Expropriation Act was passed which enabled the Municipality to acquire practically the whole of the devastated central area, and all available labour was utilized for removing the rubble and other remains of bomb-damaged buildings. Compensation, although not to be paid until such time as the owners were in a position to rebuild, was offered either in land or money.

The extent of the devastation was such that nowhere could the existing foundations be incorporated in rebuilding; and



The new Southern road. Only part of the new road has so far been constructed. The large building in the distance (left) will ultimately have to make way for a traffic island.



Stores in the Binnen Weg. A single building containing three firms. This part of the Binnen Weg will eventually become a pedestrian shopping place.



The Coolsingel. The large structure on the left is a bank. The planning authority now considers this building to be an intrusion into the shopping area. Single storey shops in front of the bank will eventually bring more life into this part of the Coolsingel.



The Coolsingel. On the right is an office building with shops on the ground floor. Beyond is the Bourse.

moreover, it was anticipated that only a few of the original streets could be retained in the new scheme. Consequently the enormous task of removing the old piles had to be undertaken. (Incidentally, due to the nature of the ground, and the fact that a large part of Holland lies below sea level, the majority of Dutch towns and cities, with few exceptions like the Hague and Hilversum, are constructed on wood or concrete piles.)

After the Liberation, the devastated central area of Rotterdam was ready for rebuilding and in the Spring of 1946, the National Government confirmed the new plan. Apart from a number of temporary shops, which were built soon after the devastation of 1940, and one or two blocks of flats erected during the war years on the perimeter of the inner city no new development had taken place during enemy occupation. To-day, a visit to Rotterdam discloses that the plan for a new central area is rapidly taking shape; and, with it, there are many interesting solutions to the problems of reconstruction.

As would be expected, there will be much more open space than before the war—only about 50 per cent of the land previously occupied by buildings will now be built upon—and of the 25,000 destroyed dwellings only 8,000 will be rebuilt within the area. The remainder are being replaced on the outskirts of the City in the Zuidwijk Overschie, and in other new extension schemes to the north and south of the River Maas.

Some 5,000 people who previously owned property in the destroyed area, expressed the wish to be reinstated in the same locality, whilst many others were prepared to go elsewhere. As for the larger industries, formerly established within the inner City, special areas have now been provided in other and more suitable parts of Rotterdam. By such means it has been possible to increase considerably the amount of open space in the central area.

Although many of the original streets have been eliminated the Coolsingel, the principal street and focal point of the old centre, has been retained, and at its northern and southern extremities, new thoroughfares are proposed so as to improve communications between the eastern and western quarters of the inner City, and to facilitate the movement of traffic to the dock area.

The existing railway system is also affected by the reconstruction scheme. For instance, a new Central Station to be built on the site of the partly destroyed Delftse Poort Station in the northern part of the inner City will eventually replace the smaller existing stations in the area. A traffic square, with facilities for cycle and car parking, and partly surrounded by shops and offices, will be built as a forecourt to the station.

On account of the increase in population, it is intended to extend the shopping centre westwards by creating a new pedestrian shopping street parallel to the Coolsingel on a site which before the war was largely occupied by slum dwellings. The majority of shops facing the new street will be single storey in height and similar in floor area to the temporary shops erected during the war years. In this way, the Authorities intend to provide permanent accommodation for those traders who now occupy temporary shops, but do not require larger premises in the new centre. In order to create an impression of height in this one-storey shopping street tall buildings, about nine storeys high, will be erected immediately behind the shops and separated from them only by service roads. The taller buildings will contain dwellings and in some cases, shops.

Several interesting features have been introduced in an endeavour to keep the actual accommodation in the City Centre as flexible as possible, and to provide for ultimate changes in the use of buildings. For example, some of the



Temporary shops in the Coolsingel. These will soon be removed.



Temporary shops in front of the post office. These are to be replaced by others of a more permanent character.



Reconstruction of a shopping area east of the Coolsingel.



New bank buildings erected soon after the war.



The Bourse, one of the few buildings to escape serious damage during the bombardment.



The Coolsingel. The large building on the right, designed by W. M. Dudok, is a bank. It was partly destroyed during the war and now stands on the site of a future traffic island.

buildings intended for immediate use as dwellings, have ceiling heights of nearly ten feet so as to be suitable for conversion into offices when the housing shortage becomes less acute. Similarly, the ground floor flats of many of the larger dwelling units are designed so that they can be converted without difficulty into shops, should the need arise.

It is interesting to note that floor space index has not been adopted as a means of limiting the volume of building in the City Centre; but in order to maintain a general unity of design and massing, there are Building Regulations which control, among other things, the height and use of new buildings. Moreover, so as to ensure as far as possible a high standard of architectural design, each developer is required to submit the name of his proposed Architect to a Commission or Panel of Experts whose function it is to advise the developer upon his choice.

The landscaping of new streets in Rotterdam is by no means the least important aspect of the City's reconstruction, and in common with most other Dutch towns and cities, the Town Planning and Public Works Departments of the Municipality are paying much attention to the selection and planting of trees and other forms of greenery. Such factors as the nature of the ground—the peat, sand and high water level—and the kind of effect it is hoped to achieve, all have to be considered in the choice of trees. The Elm, at one time extensively planted in towns throughout Holland, is now suffering from what is known as "Elm Disease," and in the centre of Rotterdam it is therefore proposed to use a variety of the Maple.

As will be seen from this brief account, the reconstruction of the devastated inner City has presented a rare opportunity for the introduction of new and imaginative ideas in almost every branch of Town Planning, and for the creation of a truly contemporary City Centre.



*The Rebuilding of Rotterdam
new office block and de-
partment store in the main
shopping centre.*



United States Information Photos

Housing Problems Pre-war and Post-war

By ROLF ROSNER, A.R.I.B.A., A.M.T.P.I.

Introduction

Pre-war housing is not only of historical interest, it also provides many useful lessons for the present and the future.

Housing statistics for any period before 1914 are non-existent, but reliable estimates may be obtained from the returns made in connection with the Inhabited House Duty. Although inhabited shops, hotels, etc., have been included and no allowances made for demolished and abandoned houses, the returns give a reasonably accurate picture.

In 1890-1 the increase in the number of dwellings in England and Wales was 55,000, in 1900-1 138,000 and in 1910-11 37,000. Between 1891 and 1901 the Census showed an increase of over a million houses in Great Britain; between 1901 and 1911 an increase of 957,000 and between 1911 and 1921 of only 435,000. The problems caused by this decreasing output were intensified by the growth of Britain's population from a total of 33,029,000 in 1891 to 42,769,000 in 1921.

By 1914 overcrowding had become widespread; it was aggravated through the war which halted the demolition of a vast number of obsolescent houses and the building of new ones.

1918-1939

At the time of the Armistice, therefore, the country suffered a serious housing shortage aggravated by monetary inflation.

Not only building costs but also local rates were much higher than in 1914. Rates of interest on loans had nearly doubled. This situation, it seemed, could only be dealt with in three ways:—

- (1) The reduction of housing standards, which had improved since 1918. This was unacceptable to the public.
- (2) The removal of rent restrictions on pre-war houses which had been imposed since 1915, thus permitting a general rise of rents to the level of those charged for the much more costly post-war dwellings. This would have caused an even more disastrous inflation and was also rejected.
- (3) The provision of exchequer grants and rate funds to reduce rents below the economic level. This method was adopted.

From 1918 to 1920 building material prices rose from 105 per cent to 198 per cent above their level in 1913.

Between January, 1919, and autumn 1920, labourers' wages increased from 107 per cent to 203 per cent above their pre-war level for a shorter week. Increases for skilled men were not quite

so rapid. The figures for bricklayers in 1919 and 1920 were 72 per cent and 137 per cent above pre-war. At the same time productivity sunk from 20 per cent to 50 per cent below the level of 1914. Building contractors could only be induced by very favourable contract terms to build for local authorities, which had to compete fiercely with private developers. There existed no effective form of rationing or priorities and in consequence contracts placed by April, 1920, for 160,000 houses worked out at a cost of nearly £1,000 per unit. Even a year later when wholesale prices dropped from 300 per cent to 200 per cent above their pre-war level, the cost of house-building had only decreased by eight per cent.

The model contracts drawn up by the Ministry of Health protected builders against any risks through increase in costs of materials and labour. Local Authorities might have rejected such terms had they not been safeguarded themselves by subsidies.

The Addison Act of 1919 gave no incentive to keep costs low. The public was insistent on accommodation standards higher than pre-war and the Government was determined to obtain quickly a large output of houses. Often expensive plans and layouts were adopted and economy in the use of materials and the supervision of contracts neglected. In spite of all apparent incentives productivity remained low.

During the three years following the Armistice no more than 170,000 new houses were built. The post-war slump and, in its wake, the "Geddes Axe" prolonged this state of affairs so that even five years after the war the number of new houses had reached a bare total of 367,000, not more than the output during the year 1936-37. Of these 367,000 houses 52 per cent were erected by local authorities, 16 per cent by state-subsidized and 32 per cent by unassisted private enterprise.

By 1922 the replacement boom gave way to a severe slump. Masters had to cut costs and increase efficiency to keep in business and men had to work harder to stay in their jobs for unemployment was widespread. Prices tumbled down everywhere and within a year houses were built at nearly half their former cost.

In 1923 the Conservative Government, in office since 1922, introduced the Chamberlain Housing Act. A maximum Treasury subsidy of £6 a house a year for 20 years was made available to either private enterprise and local authorities for houses built before October 1, 1925, either for letting or

sale at any price. In order to encourage owner-occupation, the authorities were empowered to help first prospective buyers who could not pay the initial deposits required by building societies and, secondly, landlords undertaking repairs and reconstruction of houses. Simultaneously the policies of the 1919 Housing Acts, which for the first time accepted the notion that working-class housing was a social service provided by the local authorities, were reversed. With each new scheme—the local authorities now had to convince the Minister of Health that they were better fitted to provide houses than private enterprise. Allowing only two years for the payment of the new subsidies, official quarters must have believed that the housing shortage could be overcome rapidly. The 1919 subsidies paid to local authorities were blamed for the hitherto high cost of building and low output. Unfortunately it was not realized that a contracted building industry, still suffering from the effects of war, was unable to provide quickly and at reasonable costs both houses and other types of buildings unless definite controls and priorities were introduced. The standards set up by the 1923 Act were distinctly progressive, but the means to pay for them were not provided. The poorer or the larger a family, the smaller was its chance of meeting the balance of rent or purchase price not covered by the subsidy. Only the best-paid among the working-classes could afford these houses. Districts of generally better-off classes benefited most.

The Act was opposed by the Labour Party because houses were mainly built for sale on instalments, and because private builders were subsidized out of public funds. Labour favoured publicly owned houses built for letting as this prevented speculation during times of scarcity. The Conservatives on the other hand considered private enterprise to be a means of reducing taxation and bureaucracy. They also believed that home-ownership gave the individual citizen a real stake in the country. Here, for the first time, emerged two fundamentally different housing policies. In essence, they have remained unchanged ever since.

In 1924, before the Chamberlain Act could have become effective, the first Labour Government took office, and soon afterwards passed the Wheatley Act giving higher subsidies to local-authority-built houses to be let at controlled rents. Powers were restored to the authorities to provide working-class dwellings without justifying their actions. The need for publicly owned

dwellings had now been universally recognized: in fact, the position was later consolidated by the Conservative Housing Act of 1925. Wheatley also extended the availability of the Chamberlain subsidy until 1939 and promised the trade unions a rapidly expanding building programme whilst they, in return, agreed to a dilution of the skilled labour force. A new Treasury subsidy was made available to local authorities and public utility organizations at £9 per house per annum for 40 years in urban and £12 10s in rural areas; in addition local authorities had to contribute £4 10s per house, relating average rents of new dwellings to the controlled rents of pre-war houses, with the proviso that tenants should be liable for any expense in excess of the total subsidies of £13 10s and £17 per annum respectively. No guidance was given as to the type of pre-war dwelling suitable for comparative rent calculations, nor was it clear what would happen to rents of newly completed houses if building costs and rates of interest on new capital fell at a later date. This problem was never fully clarified, for the Conservative Government which soon followed Labour in office favoured the Chamberlain Act and, in addition, reduced all housing subsidies in 1927 and 1928. In spite of vacillating policies resulting from changes of Government, housing output rose during the latter half of the Twenties. This was partly due to greater efficiency and partly to an expanded labour force. The number of workers in the building industry had increased from 583,000 in 1918 to 1,017,200 in July, 1927.

Between 1924 and 1928, 825,000 houses were built with both the aid of the Chamberlain and Wheatley subsidies. Local authorities and state-subsidized private enterprise had an equal share each in 72 per cent of the total, whilst unaided private enterprise was responsible for the rest. The total average of 208,000 houses per annum represented a great improvement on the output of the immediate post-war years.

From 1927 onwards the level of house building was again allowed to decline. It fell from 261,000 dwellings in 1927-28 to 188,500 in 1928-29. There was a slight recovery to 220,000 during 1929-30 as a result of increasing private building which now filled the gap left vacant by public activity.

During the period 1929-1933 a total of 817,000 dwellings was built, at an average annual rate of 204,000, as compared with 261,000 during 1927-28. Thirty-five per cent were put up by local authorities, 14 per cent by assisted and 51 per cent by unassisted private enterprise. The latter were mainly within reach of the lower-middle classes who bought their houses with the aid of building societies, insurance companies, or sometimes the Small Dwellings Acquisitions Act. Among the wage-earning classes, there was a certain amount of moving up into vacated houses of various categories as

the better paid among them moved into new dwellings. But the many who stood half-way down or near the bottom of the wage ladder rarely found suitable dwellings at rents they could afford. When the slump receded, house-building increased substantially. During the four years 1934-38 the annual average was a record total of 358,000, mainly based upon a further expansion of unassisted private house building which developed after the fall in interest rates in 1933. It accounted for 77 per cent of total output, public housing being a poor second with 21 per cent.

During the period 1935-39, the average annual number of privately built houses was 263,000 as compared with an average of 151,000 during the four years preceding 1934. Private enterprise had shown itself capable of rapid expansion, but by 1936 the rearmament programme created such a demand for building resources that quantities available for other purposes had to be curtailed. No further supplies of building labour and materials were forthcoming, no attempts made to develop new methods of construction and output, therefore, increased no further. In addition, rearmament had an inflationary effect. Wages and material costs increased so that by 1939 prices were more than 20 per cent above their 1931 level.

Slum Clearance

Up to 1930 only about 11,000 slum houses had been taken down and replaced. So far, because of the general shortage of dwellings it had seemed impractical to undertake clearance of slum districts, but now the public conscience began to stir. The Greenwood Act of 1930 marked the first serious step towards a solution. A Treasury subsidy was paid to local authorities varying with the number of people displaced and rehoused. Subsidies also varied with the size of families and the locality, i.e., £2 10s per person for 40 years in rural areas and £2 5s in urban areas. A special subsidy of an additional £1 5s was paid for persons rehoused in flats when the cost of purchasing and clearing sites exceeded £3,000 per acre. Local authorities were free to charge differential rents and allow rebates. The Act favoured the rehousing of the poorest who could not even afford rents reduced with the aid of the usual subsidies.

It was supplemented by the Wheatley subsidy which was maintained to provide eventually a surplus of ordinary working-class dwellings for the benefit of families who lived in houses a little better than slum properties. Local authorities were now encouraged to frame long-term programmes. Every authority with a population of more than 20,000 had to state its plans for slum clearance and the provision of more houses during a period of five years. However, when the world slump reached its height and the second Labour Government departed, the Wheatley subsidies were re-

pealed and slum clearance postponed. The National Government encouraged working-class housing with the aid of building societies, which, if they advanced 90 per cent of the capital instead of the usual 70 per cent received a guarantee from the local authorities for the additional interest and capital. Repayments were spread over 30 years instead of the usual 20. This policy came as near as could be to the abandonment of housing by the State.

1931 and 1932 were years of acute economic slump and building costs fell to less than 100 per cent above their pre-war level as compared with over 300 per cent in 1920. This and the conversion of the five per cent war loan reduced interest rates for local authorities, which had been mainly about 5 per cent to 3½ per cent. Un-subsidized houses to let could now be built at prices comparable with those of subsidized houses erected in 1927. The erection of new houses at rents suitable for slum dwellers became possible. Local authorities developed programmes for the demolition or closure of 285,189 dwellings. Their obligations increased with the passing of the Housing Act of 1935 which aimed at the abolition of overcrowding. The overcrowding Census of 1936 showed that nearly four per cent of the nine million houses surveyed were grossly overcrowded, even though standards adopted were low: two persons were allowed to a single room; three to two rooms; five to three rooms, seven and a half to four rooms; ten to five rooms and then two persons to each additional room. Children were equal to half a person. Rooms of less than 110 sq ft counted as a fraction of a room and those under 50 sq ft as well as bathrooms, sculleries, etc., did not count at all. As subsidies in this instance, were less favourable than those for slum clearance, many families were dealt with under local slum clearance programmes. As a result the number of houses to be closed or demolished increased and reached the total of 472,000 in 1939, whilst only about 245,000 houses had been actually closed or demolished by that year. Even so, this still was a notable feat because more people had been rehoused within a few years than under the sum total of all previous schemes since 1890. Furthermore, over 700,000 houses had been repaired and rendered fit for human habitation. One must be a little cautious about the extent of this latter achievement because the dwellings never came up to modern standards and interpretation of what is "fit for human habitation" varies widely.

Conclusions

Several features of inter-war housing are worth noting:

(1) Considerable changes due to wartime requirements slowed down the building industry's return to peacetime conditions. The war not only caused a diversion of activities but a

contraction of skilled labour. Constructional work was mainly concentrated on civil engineering apart from the erection of camps and factories and a class of operatives sufficed which was less skilled than that employed on housing. The number of trained apprentices fell off and many skilled operatives either were called-up or found employment in other war occupations. The number of small builders who normally had a large share of repairs and decorations also decreased.

A depleted labour force, short of skilled craftsmen emerged from the war, and it took time to reorganize and expand it. This process was slowed down by general weariness and easy-going reaction to past dangers and restrictions and the anomalies of the Addison Housing Scheme which almost stimulated inefficiency.

(2) A successful housing programme can only be carried out on a long-term basis with details planned well in advance. Only such conditions will give builders, material manufacturers and operatives sufficient confidence. The slumps of the early 'twenties and 'thirties and the conflicting housing policies of alternating governments made this impossible. In 1918 the fear of sudden cuts and subsequent unemployment caused the operatives to oppose strongly a dilution of the diminished labour force. This opposition was withdrawn when Wheatley undertook to carry out a long-term programme; but his Government fell during the same year and his successors in office were not bound by his decisions. Local authority and assisted private enterprise housing fell off sharply after 1928 when it had reached its highest levels as the result of the Wheatley Act. From then onwards housing output began to decline until 1933. Divergencies of policy are, of course, part of the system of party government, but several times during the inter-war period they were most detrimental to the building industry.

(3) The level of interest rates much influenced the scale of housing activities. If a house costs £400 to build and the rate of interest is 5 per cent, the rent necessary to meet this charge alone would be 7s 9d a week, without any allowance for sinking fund or management expenses. If interest stands at 3 per cent the charge would be reduced to 4s 7d. The fall in interest rates from 4½ per cent to 3½ per cent much stimulated the building industry. Little less important was the length of time allowed to repayments. Under the Act of 1933, the building societies required repayment within 30 years. This involved a sinking fund charge of more than 2 per cent. With repayments for local authority houses over 60 years, the charges were below 1 per cent. The former method involved an extra 3s on the weekly rent.

The economic level of rents was more affected by the level of the interest rate than the level of labour costs or even the cost of materials.

(4) Owner-occupation had obvious disadvantages. From the date of occupation the property became second-hand in the same way cars depreciate in value so soon as they cease to be brand new. As its age increased so increased time and money which had to be spent to maintain it adequately. Even if the house was soundly designed and constructed, which was not always the case, demand predominated for the newest houses with the latest gadgets. When the owner had to move from one district to another, for example, because he had found more suitable employment, or when he had to dispose of the property because of financial difficulties, he risked losing the savings he had used for covering his part of the purchase money and often even some of the instalments he had paid in liquidation of the loan. These risks tended to encourage an immobility among small house-owners which had other undesirable consequences. The size of the dwellings could not be harmonized with the changing needs of the family. It happened only too often that newly married and old couples found themselves tied to a house the capacity of which was only properly utilized by the presence of children.

Any slack was often taken up by letting unoccupied rooms to lodgers, but whether these were relatives or strangers the arrangement was irksome. Thus the danger of under-occupation or overcrowding was ever present, detrimental not only to the nation but also to the individual householder who, tied to his property, could ill-adjust his income to changing needs.

(5) Neither local authorities nor private enterprise, the latter of which provided the bulk of inter-war dwellings, solved the housing problem of the ordinary working-classes, i.e., a very substantial section of the population. The local authorities tended to assist the better-paid among the workers (with incomes above £3) who could afford the rents of subsidized houses, whilst the poorer, who could not afford these rents inadvertently helped their fortunate neighbours through tax and rate contributions. Many authorities preferred the Chamberlain to the Wheatley subsidy. Being free to choose they thus

neglected the provision of dwellings at the lowest possible rents.

Private enterprise until the early Thirties concentrated on fulfilling the demands of the middle and upper classes. When it turned to the provision of small houses it could not build them as cheaply as the local authorities who could raise their capital on better terms. The difference in the cost of capital was as much as 25 per cent of the capital charges on a new house. In addition, private enterprise expected a profitable and not just an economic return on its completed houses.

Seebohm Rowntree in his York survey found that about 4,300 private enterprise houses were built in that city. Only 670 (15.6 per cent of the total) were occupied by families with less than £5 a week. 500 out of 670 were sold to the occupiers. The average weekly outgoings covering loan charges, rates and repairs amounted to 20s. The remaining 170 houses were rented at an average gross rent of 15s 11d. Nearly half were above this figure. It is certain that the situation in York was little different from that in other towns. The First National Housing Trust, a privately sponsored organization, operating between 1935 and 1939 was unable to build small rural houses to let at a rent of less than 11s 7d a week, although a building society lent 90 per cent of the cost at the exceptionally low rate of 4 per cent. Interest and sinking fund accounted for 6s 4d maintenance, management, etc., for 2s 2d, and rates for 3s 1d.

On an estate in Birmingham the total rent was 14s 1d. Loans from the Municipal Bank were also at the low rate of 4 per cent. In these two cases the local authorities had helped, but where this was not the case, rents were even higher, e.g., on a Croydon estate the rent was 18s 9d and even then outgoings were not fully covered.

Rents of council houses in England and Wales in 1936 were as in Table A.

Most dwellings with net rents up to 5s in urban areas were dwellings smaller than family houses. Some were low-rental dwellings for families with small incomes and several children.

The Return deals with net rents and

Area	Up to 5s	5s 1d to 8s	8s 1d to 10s	Over 10s	Total
County of London	960	10,973	23,634	49,626	85,193
County Boroughs	42,717	206,443	83,625	24,169	356,954
Non-county boroughs	17,458	74,385	29,609	21,812	143,264
Urban districts	21,245	100,368	38,208	17,780	177,601
Rural districts	29,888	59,866	11,514	1,997	103,265
England and Wales	112,268	452,035	186,590	115,384	866,277

TABLE A

	Up to 7s 6d	7s 6d to 11s 6d	11s 6d to 13s 6d	Over 13s 6d
No. of houses ...	83,380	392,169	175,076	113,387
% of total	11%	51%	23%	15%

TABLE B

therefore does not include rates. These in urban areas were about 2s 6d for net rents between 5s to 7s; 3s for 7s rents and 3s 6d for 8s or more. In rural districts they were lower.

Gross rents in urban areas were, therefore, distributed as in Table B.

It was estimated that the gross rent of 450,000, i.e., about half of the council houses did not exceed 10s.

How rents were related to incomes in 1936 can be gathered from the research conducted by Colin Clark in 1929. The index of earnings during that year was approximately the same as in 1936. (See Table C.)

More than 60 per cent of all incomes were below £125 p.a. or 48s 6d per week. The average weekly expenditure on food was about 9s per head in 1935. This covered a quite adequate but by no means perfect diet. Taking the average size of family at that time as 3.6, the weekly outlay on food was 32s 6d. To this must be added about 5s for clothing, 4s for fuel and light, 1s 7d for insurance, 5s for household and personal sundries. These figures are based on the Bowley "Bare Subsistence" standards and the Rowntree "Human Needs" standards at 1935 prices. No allowance has been made for items such as medical expenses, recreation, tobacco, sweets, furniture and repairs, etc. The total weekly expenditure except on rent was, therefore, 48s 1d and it can be seen that the rents required for adequate dwellings were beyond the reach of hundreds of thousands of families, particularly if they had children. Or in reverse, the incidence of poverty, was shifted from housing to the food budget. Dr. McGonigle's investigation in Stockton-on-Tees showed that when the population of the "Housewife Lane" slum clearance area where the average rent had been 4s 8d was transferred to a new housing estate with rents averaging 9s the consequences on diet and health were disastrous.

Rowntree in his "Poverty and Progress" described how one-third of all working-class families had such inadequate incomes that they could not even afford the rents of pre-1914 houses or of post-war subsidized council houses, without going short of the necessities of life. In "The Human Needs of Labour" he showed that an agricultural labourer with a family of three or more children and an income of less than 35s 6d could not pay rent at all. Labourers' wages in most counties were, in fact, below that figure. This bears out the contention that the problem of better housing is fundamentally one of income.

(6) Lack of National Policy affected equity, quality and progress of housing schemes.

(a) The extent of slum clearance was left to the varying initiative of individual authorities, e.g., during 1936-37 Great Yarmouth completed only 52 houses compared with 110 in the previous year. Even by 1938-9 the annual

Amount of Income	No. of incomes	No. of incomes as % of all incomes	Average income in group £	Weekly Earnings £
Over £10,000	10,000	0.05	£22,000	—
£2,000—£10,000	100,000	0.5	£3,780	—
£1,000—£2,000	199,000	1.0	£1,190	—
£500—£1,000	508,000	2.7	£614	—
£250—£500	1,527,000	8.1	£264	£5 1s 6d
£125—£250	4,925,000	26.1	£199	£3 16s 0d
Under £125	11,600,000	61.5	£100	£2 8s 6d
Total	18,869,000	100.00		

TABLE C

rate had not reached a reasonable level. In contrast Newcastle managed to increase the rate of building from an average of 568 houses a year under the earlier subsidies to an average of 767 houses between 1934 and 1939.

(b) The quantities of houses to be built at various levels of costs and to let at various levels of rents were not defined.

(c) Methods of charging differential rents were neglected for a considerable time and their legal provisions remained vague. In absence of ministerial guidance these schemes were interpreted in many different ways. Thus, in addition to means tests introduced by the State, the poorest had to face quite arbitrary local tests.

(d) Unaided by a nation-wide scheme of equalization, the impoverished municipalities of the depressed areas could far less afford to help their many poor and unemployed citizens through liberal rent reductions than the more prosperous authorities of southern and western England.

(e) The premature release from rent control of a number of small pre-war houses at a time when shortage was still acute reduced their availability to poorer families.

(f) Private house building was allowed to gravitate around large provincial towns, the more prosperous Greater London area and southern counties, whence many people from the depressed areas emigrated in search of better conditions. This factor, aggravated by inadequate town planning control, resulted in the destruction of vast areas of agricultural land and scenic beauty.

Post-War Housing

Estimates made by the end of the Second World War and since of the number of new dwellings required to solve the housing problem have varied widely. Official quarters stated in 1945 that about four million houses would have to be built over a period of 10 or 12 years. An accurate assessment of housing needs was hampered by the lack of data. As no Census had been carried out in 1941, estimates were based on the Housing Census of 1931, the Overcrowding Survey of 1936, and some private sample surveys. Requirements may be grouped thus:

A. New dwellings occupied annually by additional families (e.g., as a result

of marriage).—This need, according to statisticians, was met by 50,000 to 60,000 dwellings each year of the inter-war period. Upward variations for these figures are necessary because the yearly number of marriages between 1939 and 1951 was substantially higher than in 1921-1939, and because the Rent Restrictions Act of 1939, by giving security of tenure, slowed down the vacating of dwellings. Even if some allowance is made for the increased number of divorces, one may reasonably assume as adequate an annual total of 80,000 dwellings.

B. Slum Clearance.—This relates to the five million working-class dwellings built before 1914. First, there are the sub-standard houses which in 1939 had not been demolished under slum-clearance schemes; their total amounts to about 250,000. Secondly, those dwellings which just escaped inclusion in clearance schemes and which the authorities since the 1930 Act had rendered fit for human habitation, although they remained below modern standards, their total is about 750,000.

The 1951 Census shows how many of the five million dwellings lacked even most elementary modern standards: 6,522,600 households were without exclusive use of fixed baths; 3,293,700 without exclusive use of W.C.s. 44 per cent of the households in the County of London and 34 per cent in Manchester had no baths. 6,000 households in Greater London had no w.c. at all.

Additional information can be obtained from age and condition of building surveys prepared by planning authorities for their development plans. e.g., the London County Council has used a set of 25in-scale Ordnance maps for a very detailed survey. Buildings have been classified into those erected: (a) before 1870; (b) between 1870 and 1916; (c) since 1916; (d) those extensively war-damaged; and (e) those already condemned or which would be scheduled for demolition under the Housing Acts if demolition were immediately practicable. Of a total of 40,684 acres, 9,304 comprised areas of mainly pre-1870 dwellings and 17,735 acres dwellings built mainly between 1870 and 1916. Estimates of unfit houses are classified as follows: (1) Probably representable at once; (2) For consideration after five years; (3) For later consideration (probably at the end of ten years).

C. *Overcrowding*.—As a result of the 1951 Census, the number of households with more than two persons per room was 282,900, or 2 per cent out of a total of 14,481,500. This seems to compare favourably with the Overcrowding Survey of 1936 which showed that nearly 4 per cent of all dwellings in England and Wales were overcrowded, were it not that specific provisions of the 1936 survey had not been considered in 1951, i.e., that rooms of less than 50 sq ft do not count and those of less than 110 sq ft counted as a fraction of a room. This aggravating omission will hardly be counterbalanced by the provision in the 1936 survey that a child under ten years counts only as a half a person. But then, in any case, the very low standards in 1936 (described in the chapter on slum clearance above) are unsatisfactory for even the most modest of current standards. The latter is adequately defined in Section 37 of the Housing Act of 1930 relating to re-housing activities of local authorities: a new dwelling containing two bedrooms shall house four persons; one with three bedrooms five persons; one with four bedrooms seven persons,

standards, and how many years should be required to reach a certain standard on a nation-wide scale. Apart from the negative facts outlined above, the positive achievement of housing progress from 1945 until 1952 must not be overlooked; 1,250,000 dwellings of high standards were built in Britain during that period. Aiming high, i.e., allowing for adequate housing of new families, slum clearance, elimination of overcrowding, liquidation of much obsolescent development, and requirements of industry, an annual output of 450,000 dwellings over the next ten years might be necessary; aiming low, an annual 200,000 over the next 20 years might be regarded as adequate. In either case many under-occupied dwellings will have to be utilized more adequately and families and single persons induced to live in dwellings of a size most suitable to their requirements. Apart from present overcrowding, the 1951 Census reveals many facts about under-occupation; 55.9 per cent of the structurally separate dwellings in Great Britain have four or five rooms, whilst 52.4 per cent of all households consist of two or three persons. The number of

3,716,920 would accrue. This, at the same standard, would accommodate 198,500 one-person, 512,990 two-person and 377,150 three-person households, i.e., a total of 1,087,640 dwellings. Even if this total were reduced for various reasons, e.g., unsuitability for conversion of many properties, provision of bathrooms, etc., there would still exist the possibility of gaining 500,000 dwellings, or more than two years' housing output at the current rate.

Current Housing Problems

In some aspects the present situation resembles that of 1921. Inflation of building costs is yet undiminished. The Third Girdwood Report finds that, in spite of many economies in design and specification, the cost of house building rose much faster from 1949 to 1951 than it had in the two previous years. The cost of an average three-bedroom council house completed in 1949 was £115 higher than that of a slightly smaller type in 1947 and higher again by another £175 in October, 1951. This in spite of savings due to simplifications. The major cause of the increase has been the inflated cost of materials, i.e., a rise of £121 between autumn 1950 and 1951. Timber accounted for £46, and this sum would have exceeded £60 had the house been started after the removal of price control in March, 1951. Outside works and land charges rose by £32, overheads and profits by £16, and professional fees £14 beyond their cost in 1949. Claims for wage increases during the currency of the contract were assessed at £19. Output per man having improved from 31 to 20 per cent below the pre-war level in 1947-49, remained stable over the following two years. However, according to a recent statement by Mr. Marples, productivity has risen again in 1952.

Regrettably, no progress was made in the spread of incentive schemes since 1949 when they affected half the housing labour force. Pre-war productivity would save £100 and the reduction in space standards recommended by the Ministry of Housing another £150. Even so, the total of these two items would not entirely balance the increase of £290 since 1947 when building costs were more than 300 per cent above their pre-war level. Weekly rents for prototype houses work out as shown in Table F on page 765.

The Girdwood Committee intended to test the cost of comparable semi-detached and terraced private enterprise houses, but information received from 139 local authorities related only to the value of issued licences, not to the actual building cost. An offer by the B.R.S. to study private builders' accounts was declined by the Committee because the difference in average size between private and council contracts would have resulted in a costly and inconclusive investigation. This view was corroborated by the National Federation of Building Trade

HOUSEHOLDS OF SUCCESSIVE DENSITIES OF OCCUPATION

Persons per room (incl. kitchen)	Over 3	3 and over 2	2 and over 1½	1½ and over 1	1 or less
No. of households	57,700	225,300	767,700	1,686,200	11,804,600

TABLE D

etc. This standard works out at about one person per habitable room and can be applied to the findings of the 1951 Census. (See Table D)

2,736,900 households are thus overcrowded according to the standards of the 1930 Housing Act. This figure is clearly related to that of households in shared dwellings which is 2,078,000.

Samples from various parts of the country show that overcrowding in the old industrial areas is still undiminished. (See Table E)

D. *The present deficit of dwellings*.—It is almost impossible to decide how many new dwellings have been needed since 1940 to solve the housing problem in Britain because this is a question of policy, whether no one should live below certain low minimum standards, whether no one should live below adequate contemporary

single-person households comprises 10.8 per cent of the total, yet far too few one- and two-room dwellings have been built so far. The output of three-bedroom houses and flats often occupied by a couple with one or no child has been and still is considerable. These comprised 50 per cent of the dwellings on tenders approved in the last quarter of 1951 as compared with 61 per cent two years before and 80 per cent in the six months ending in September, 1948.

In 1951 there were 1,112,810 one-, two- and three-person households occupying dwellings with rooms in each numbering six to fifteen or more, i.e., 2,628,110 persons occupied 7,295,900 rooms (0.36 persons per room). If these dwellings were utilized more equitably at a standard of two rooms for one person, three rooms for two persons and four rooms for three persons, a surplus of

Location	No. of Households in all dwellings. Persons per room	No. of Households in shared dwellings. Persons per room
Central Clydeside	1.23	1.55
Glasgow	1.28	1.53
Bradford C.B.	0.77	1.37
Durham	0.90	1.25
Tyneside	0.88	1.20
Lancashire	0.72	1.01
London	0.83	0.88
Kent	0.67	0.81
East Sussex	0.63	0.75

TABLE E

	1947 house		1949 house		1951 house		1951 house at new int. and subsidy rates
Building cost	17s	3d	18s	4d	20s	2d	25s 10d
Total cost (inc. site and professional costs)	19s	5d	21s	0d	23s	6d	30s 1d
Economic net rent (inc. repairs, etc.)	23s	3d	24s	10d	28s	1d	34s 8d
Subsidized net rent	14s	10d	16s	5d	19s	8d	21s 0d
Rates	—	—	—	—	—	—	3s—8s 6d
Total (Subsidized rent & rates)	—	—	—	—	—	—	24s—29s 6d

TABLE F (See page 763).

Employers. The Federation still felt that the private enterprise builder could build more cheaply than local authorities, but the support for this was based on pre-war experience.

There are other factors which may at present or in future frustrate the expansion or cost reduction of low-cost house building.

Since 1945 sewerage and other services for new factories and housing schemes in the development areas have been subsidized, but now the Minister of Works proposes to end this special aid. The local authorities either have to abandon proposed schemes or add as much as 6s to their rates; and these are generally high in the areas concerned, in spite of equalization: e.g., Merthyr Tydfil rates in 1951-52 were at 24s 6d., 4s 5d above the national average for county boroughs.

A provision in the Public Works Loan Bill will have, if applied, a curtailment effect on all housing authorities. They may be required to borrow money from the Stock Exchange. The increase in the interest rate on loans to local authorities above 3 per cent caused a rise in net rents of 5s to 10s, according to the size of a house; borrowing on the Stock Exchange at an even higher rate could force the authorities to reduce their capital expenditure, thus adversely affecting their housing programmes.

One of the effects which will result from the abolition of the development charge is that owners of land may get higher prices from private developers than local authorities unless the latter make free use of their powers to buy land for resale to private builders. The absence of the charge will not necessarily lower the cost of buying private land; it may just transfer to the seller of the land the Central Land Board's share of what the more affluent possessors of building licences are now prepared to pay.

All the measures described seem to confirm the impression that the Government intend to guide an increasing percentage of house building into private channels. This trend will have the benefit of tapping so far not fully utilized sources of capital, but whether it will provide dwellings for people with modest means is not yet certain. During the mid-Thirties this

condition was practically achieved through a combination of (a) subsidies; (b) a lowered rate of interest; and (c) low building costs. Identical conditions for (b) and (c) are non-existent now, although it should be noted that building costs have at least steadied because of the drastic drop in raw material prices. (According to Reuter's index, wholesale prices have dropped from a peak of 630 in February, 1951, to 523 in October, 1952.)

The rate of completion for new houses now runs at such a satisfactory rate that at least 230,000 houses should be completed in 1952. By the end of June the number of houses under construction was 251,705, 26,000 higher than in December, 1951. This indicates that output is likely to increase even further in 1953 until limits set by the size and productivity of the present house-building labour force are reached. Its size can hardly be expanded much further. Building for defence continues to require a substantial part of the industry's labour and some transfer from other sectors has already taken place, e.g., from school building. Miss Horsburgh has stated that building work started on 128 new schools between January 1 and July 31, 1952. For 1950 and 1951 the comparable figures were 164 and 424. The consequences will be serious. The largest group of infants, not far off one million is entering school during 1952-53. According to the Minister there were, as far back as January, 1952, 39,026 classes with more than 40 pupils and 1,240 with more than 50 pupils.

As transfer of labour from other sectors of the industry seems unlikely, only higher productivity will ensure the further expansion of housing output. This, and also a reduction in costs, cannot be achieved until a far greater measure of mechanization is adopted.

Not only the quest for more housing but also the problem of location is worrying a number of authorities. Land available for housing is becoming exhausted and slum-clearance alone is costly and little reduces the waiting lists, e.g., the L.C.C. are now searching beyond the home counties for housing sites. Sheffield, with a total requirement of 42,000 houses and all

available sites within the city exhausted by 1953, has attempted to acquire 500 acres of good agricultural land. It seems strange, then, that at a time when each year 10,000 or more acres of fertile acres are lost, the idea of multi-storey housing should be so ferociously attacked by its various opponents. It is one thing to point out anomalies in present subsidies for flats, but another to belittle by purely theoretical calculations the gain for food production resulting from multi-storey building. Also, the value of individual gardens to the national food supplies is overrated. Many people have neither the time nor inclination to grow food and even those who achieve optimum production incur waste because the range of their produce remains limited. The garden city just is not the medium for getting maximum output from every remaining acre of agricultural land, the real value of which is likely to rise steeply during the next 10 years. Be it not forgotten, the population of the world is increasing by one per cent every year.

The lessons of the inter-war period applied to the present situation may be summed up as follows:—

(1) A policy with emphasis on houses to let, particularly if built by local authorities, will satisfy wage earners and low-salaried employees, i.e., the great majority of housing applicants. It will also ensure mobility of labour and facilitate the equitable distribution of dwellings according to the size of families.

(2) A policy based more on the sale of houses will have the opposite effect, unless special safeguards are taken. It will also tend to shift demand to the south of Britain where wealth is more concentrated.

(3) A successful housing policy must be based on long-term programmes unaffected by changes of Government or rash measures of "economy" resulting from a trade recession.

(4) The lowest paid among wage earners and parents with many small children need special financial assistance to afford adequate housing. In this connection the relation between the level of rents and the cost of food (i.e., an adequate diet) must be constantly considered. The recent cut in food subsidies which has now put up the retail price index by several points is unlikely to strengthen the case for higher rents.

(5) To be equitable, methods of differential rent assessment should be worked out on a national scale; so should be the number of dwellings of various sizes required to ensure a balanced housing programme. The 1951 Census gives the required data.

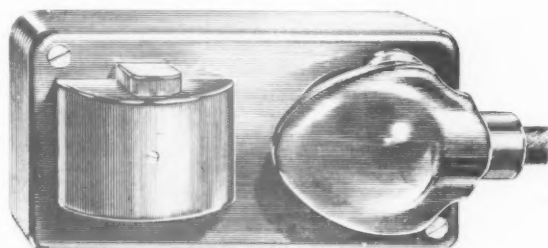
(6) The further sprawl of low-density housing should be curtailed. According to the Census, 38.4 per cent of all households comprise one or two persons only. At least they and quite likely many of the three-person households can be adequately housed in flats.

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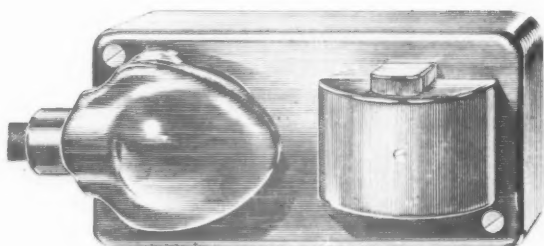
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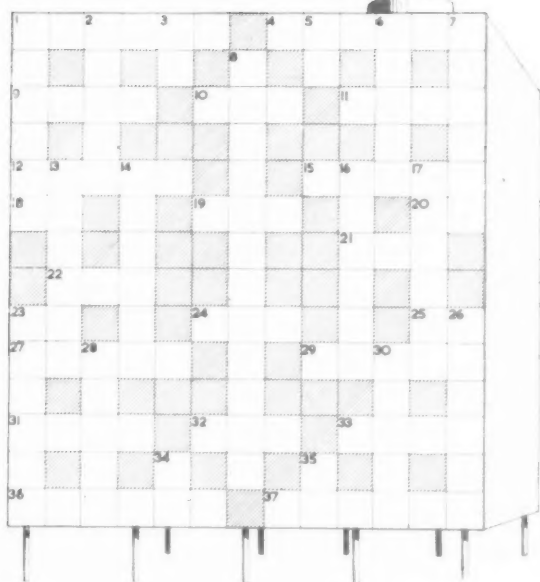
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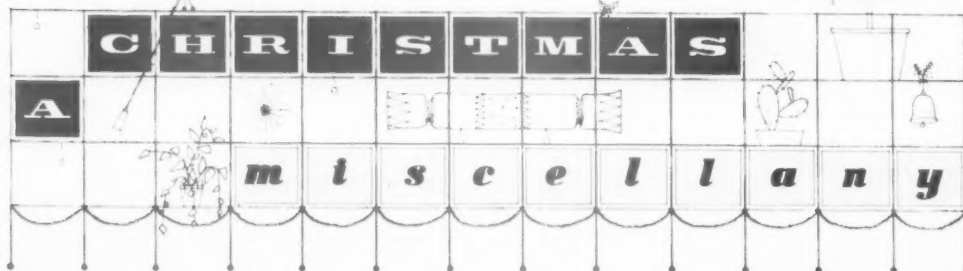
DOWN

1. Underneath the arches (6).
2. A college window (5).
3. A clue for example (2).
5. Scouts or Architects ? (2).
6. Often composite (5).
7. Alice couldn't see through this (6).
8. Useful projections (12).
13. Architects in song may put it on edge (6).
14. Would the Egyptians do this to mummy ? (6).
16. A room with a view (6).
17. A fishwife may be a this in a this (6).
23. Bricks in store (6).
26. Le Corbusier finds these indispensable (6).
28. A headless tablet is confused (5).
30. Five and fifty surrounded by nothing (5).
34. Presumably the editors do not make errors (2).
35. Marks the spot (2).

ACROSS

1. An Architectural tale (6).
4. This clue may floor you— (6).
9. —But this one will fox you (4).
10. Sounds like the beginning of 8 down (3).
11. Found in 13 down (4).
12. It is in letter form (5).
15. A floating board (5).
18. Back in 19 across (2).
19. Wet or Dry (3).
20. Do not try to get the point of this load (2).
21. A light floor, but not for burning (3).
22. C.I.A.M. loses a thousand, and is re-organised (3).
23. Where is the Architect ? (2).
24. But insulation is the thing (3).
25. Initially the editor of detail sheets (2).
27. Gee ! so they are arches (5).
29. The road to the building centre (5).
31. Can you beat it ? (4).
32. Plays and the L.C.C. have this in common (3).
33. When is a jar not a jar ? (4).
36. Ancient beam and post (6).
37. Established principles (6).

ANSWERS TO THE CROSSWORD WILL APPEAR IN THE NEXT ISSUE OF THE 'A&B.N.'



XMAS

L 17

CHRISTMAS RECIPES

'MOCK TURKEY'

INGREDIENTS:

ONE BOILING FOWL, AND THIS WEEK'S RATIONS

METHOD

INFLATE THE FOWL. BOIL THE WEEK'S RATIONS & USE AS STUFFING. PUT A SQUARE ROOT IN A ROUND HOLE & BAKE ACCORDING TO R'S METHOD. UNTIL THE BIRD HAS A GOLDEN MIEN CARVE AT AN ANGLE OF 60°, AND ENOUGH IS AS GOOD AS A FEAST

*A CORRUPTION OF 'AH BISTO'

PLUM DUFF

A 3:2:1 AGGREGATE SHOULD BE USED. PLACE IN A ROTARY MIXER & MIX FOR TWO HOURS. TIP INTO A PNEUMATIC TYRED BASIN AND COOK UNTIL THE PUDDING IS DUN BROWN. SERVE WITH RELISH. THE PUDDING MAY BE LIT IF DESIRED, IN WHICH CASE THE CINDERS TASTE DELICIOUS

STUDENT HOWLERS

THE STRING OF THE STAIRS IS SOMETHING TO DO WITH ROPE LADDERS

A SASH IS A PIECE OF COLOURED CLOTH WORN ROUND THE WAIST

THE ROMANS USED THERMÆ FOR MEASURING TEMPERATURE

THE CORINTHIAN CAPITAL USED TO BE THE CHIEF TOWN IN GREECE

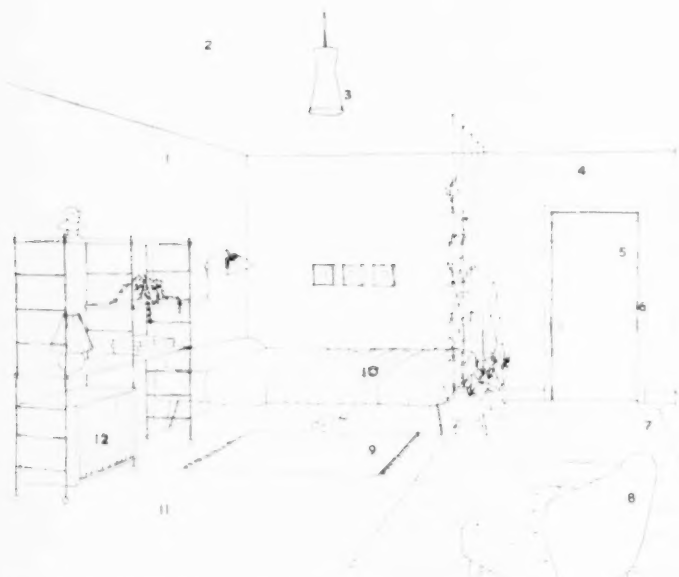
'VAULTING' MEANS JUMPING OVER A GATE

A TRAMMEL IS A SINGLE DECK TRAM

A SLEEPER WALL IS A BENCH FOR TRAMPS

RUBBLE IS A CROWD OF DISORDERLY PEOPLE

A WALL PLATE IS A PIECE OF DECORATIVE CHINA



- 1 'ELEPHANTS BREATH' WITH 'JAUNDICE' SPOTS WALLPAPER
- 2 'SOUR GRAPE' CEILING
- 3 'SUNBURST RED' LAMP SHADE
- 4 'STEWED PRUNE' DISTEMPER
- 5 'COLD COCOA' DOOR
- 6 'FLY-BLOWN HADDOCK' ARCHITRAVE
- 7 CARPET, ALTERNATING STRIPES OF 'SQUASHED TOMATO', 'STRONG SEAWEED', 'COO'S EYE' & 'COMBINATION RED'
- 8 'CANNED SAUERKRAUT' CHAIR FABRIC
- 9 'ADDED EGG' RUG
- 10 BEDSPREAD 'CRUSHED MELON' & 'OLD ARMY SOCK'
- 11 'PACIFIC PLANKTON' LINO
- 12 CURTAIN 'OLD FLAME'

COMMENTS SHOULD BE WRITTEN IN THIS SPACE -

AND THEN THROWN AWAY



COLOUR SCHEME FOR A BED-SITTING ROOM

WITH CONTEMPORARY ARCHITECTURE BECOMING WIDELY ACCEPTED, IT IS FELT THAT THE TIME HAS COME TO STANDARDIZE THE RANGE OF COLOURS AVAILABLE TO ARCHITECTS

THE DETAIL SHEET STAFF HAVE, THEREFORE, COMPILED A LIST OF COLOURS WHICH ARE OFTEN USED BY STUDENTS, AND WHICH WE THINK WILL BE OF IMMENSE VALUE TO ARCHITECTS WIVES, AND PAINT MANUFACTURERS. EACH COLOUR IS PRECEDED BY THE LETTERS 'A & B N'

QUERIES REGARDING THE CHRISTMAS DETAIL SHEET SHOULD BE SENT TO THE EDITOR, ON A POSTCARD, ENCLOSING A MAIN-WEARING GROMMET & COPPLE-SHAFT 9INDER. THEY SHOULD REACH HIM NOT LATER THAN THE TIME ALLOWS

THIS GAME IS FOR ANY NUMBER OF PLAYERS. ONE DICE SHOULD BE USED. ONE COUNTER OR BUTTON FOR EACH PLAYER TO START THE GAME, A SIX MUST BE THROWN BY EACH PLAYER, BUT THIS IS NOT COUNTED IN THE SCORING. THE DICE IS THEN THROWN NORMALLY AND COUNTERS ARE MOVED FORWARD ACCORDING TO THE NUMBER THROWN. NO EXTRA TURNS ARE ALLOWED FOR THROWING A SIX.



COUNTERS MAY BE CUT OUT & GLUED TO CARDBOARD



56 ARCHITECT FINISHES DESIGN DO NOT GO ANYWHERE	57	58	59 CLIENT SECURES BANKRUPT	60	61	62 HOUSE DILAPIDATED IN A.D.M.
55 MAINTENANCE DEPARTMENTS GO TO NO. 57	54	53 PLASTER FALLS OFF WALL GO TO NO. 50	52	51	50 CLIENT MOVED GO TO NO. 53	48
40	41 HOUSE REACHED EIGHT FLOORS GO TO NO. 45	42	43 UNEQUAL SETTLEMENT DISCOVERED GO TO NO. 39	44 HOT WATER PIPE BURSTS GO TO NO. 43	45	46
39 BUILDING INSPECTOR ARRIVES GO TO NO. 36	38	37	36 MURKIN GO ON STRAKE GO TO NO. 32	35	34 FIRST FLOOR LEVEL REACHED GO TO NO. 36	32
24 TENDERS RECEIVED GO TO NO. 18	25 CONTRACT SIGNED GO TO NO. 26	26 BUILDING COMMENCED WE LOSE JOB GO TO NO. 29	27	28	29	30 SITE TEMPORARILY FLOODED GO TO NO. 26
23	22	21 POOR DRAWINGS PREPARED BY A LACK OF SKILL GO TO NO. 23	20	19	18 SYLHAN APPROVAL GO TO NO. 19	17
8 CLIENT REJECTS PLANS GO TO NO. 4	9 CLIENT ACCEPTS PLANS GO TO NO. 12	10	11 MIN. AT TABLE REJECTS SCHEME GO TO NO. 4	12	13 MIN. AT TABLE ACCEPTS SCHEME GO TO NO. 15	14
7	6 SKETCH PLANS PREPARED GO TO NO. 7	5	4 ELECTRIC THE CLIENT GO TO NO. 4	3	2	1 START TATY THE ARCHITECT



1.

1. In what country would you say these buildings are, and what is their use?

2. This building is near the Albert Memorial, London. Can you say what it is and who was the architect?



Q U I Z

1. Who said "You don't have to be nuts just because you're modern."
2. What architects take part in the B.B.C. "Critics" programme?
3. What is the dimension of the module recommended by the R.I.B.A. Committee?
4. Define "The People's House."
5. What limits the building of a private house, money or area?
6. Are byelaws mandatory?
7. What would a "Wineglass" mark cut on stone in a quarry have signified?
8. What are or were: (a) A Pend. (b) A Lucam. (c) A "Gong."
9. Can you give the names of four members of the panel of consultant architects for the U.N.O. Building, Manhattan?
10. Of what cultural body concerned with the design of Architecture is Mr. John Betjeman a member?
11. Of what stone is the new Coventry Cathedral to be constructed?
12. Which of the following have received the R.I.B.A. Royal Gold Medal for Architecture? Walter Gropius; Sir John Burnet; Maxwell Fry; Sir Ninian Comper; Le Corbusier; Sir Owen Williams.
13. What is the difference between a customer and a client?
14. What is the height of the High Paddington project?
15. What is Vacuum Concrete?

OFFICIALESE

Subject to Head (ii) of Article 4 of this Order, any material included in any category in Part I of the Third Schedule to this Order may be acquired for use in the United Kingdom by any person who is able to certify and, by giving to the person disposing of it to him the certificate prescribed in Part II of that Schedule (but not by any other means), does thereby certify, for the purpose of this Order, that all the material in that category acquired or agreed to be acquired by him under the provisions of this Article in the month of the year in which the material then being certified is delivered to him will not, together with that material then being certified, exceed the quantity specified in Part I of that Schedule against the category of that material; Provided that no such certificate shall be required if the price both to be paid and in fact paid for the material does not exceed Twenty Shillings.

PLAIN ENGLISH

(an approximate translation by Sir Ernest Gowers)

This Order enables anyone (with the exception mentioned below) to acquire limited quantities of certain materials for use in the U.K. The materials, and the maximum quantities that may be acquired in any one month, are set out in the third schedule. Except where the price paid for the material does not exceed 20s, the person acquiring must give the supplier a certificate, in a form prescribed by the Order, that the transaction will not bring his acquisitions for the current month above the permitted maximum.

But this will not entitle holders of I.S. Authorizations bearing the symbol L.S.C. to acquire additional quantities of the materials comprised in their Authorizations.



16. Where is the Architects' Annual Conference being held in 1953?
17. How much per place is allowed by the M. of E. for (a) Primary Schools (b) Secondary Schools?
18. What is the name of the (i) President of the American Institute of Architects (ii) The President of the Institute of Registered Architects (iii) The Minister of Materials?
19. Who is the architect for the new Abbey Theatre, Dublin?
20. One large and important city in the U.K. has refused to appoint a City Architect. Which?

The answers will be given next week.

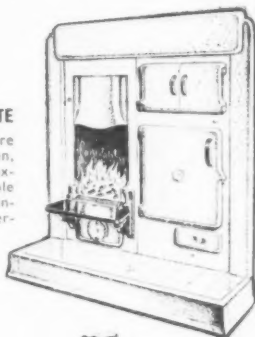
THE

ECONOMICAL

FOUR

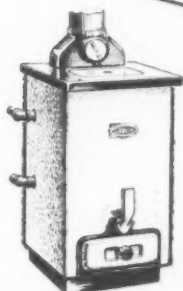
DERWENT COMBINATION GRATE

Efficient and economical fire provides heat for a large oven, fast-boiling hotplate with extension hob; hot closet. Ample domestic hot water and controlled room warmth. Overnight burning.



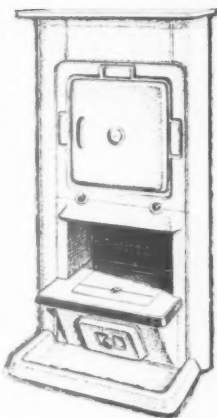
BOILERS B33 and B22

Waterway encircles fire and gives high output per square foot of heating surface. Bright, clean finish, minimum cleaning. B33 has steel water jacket, B22 cast-iron.



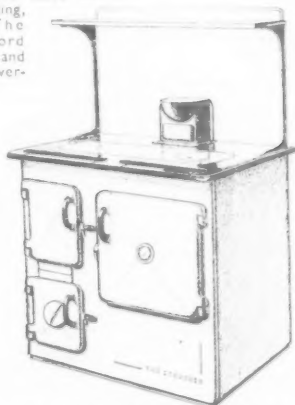
MILFORD oven-over Fire COMBINATION GRATE

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3

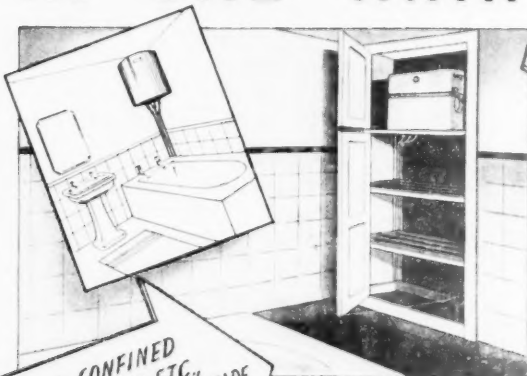
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LOCAL AUTHORITIES



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DOWN TO A BACK TO FRONT
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Technical Information

I HAVE lately been shown a copy of the second of the L.M.B.A. technical information service bulletins. It is pleasantly produced, although I feel that fuller information might have been given if advantage had been taken of the two blank pages at the end.

This second issue is devoted to the subject of floor finishes, which is one likely to give rise to a constant stream of questions to a builder's technical information bureau. The Bulletin stresses that the service is designed to give information on specific problems and points out that the advice given in the publication will not necessarily apply to other cases however similar they may seem. In view of this statement one is inclined to wonder whether there is advantage in relating the information given to specific problems or whether there would not be greater usefulness to the recipients if the information could be of general guidance.

The discussion on granolithic concrete flooring for heavy industrial uses commences by making reference to crushed rock aggregate, but it gives no guidance on how to select suitable aggregate for this purpose, and merely suggests that the reader should consult a B.R.S. Digest. It seems to me that either the Bulletin should discuss such subjects fully by extracting the B.R.S. information or, alternatively, to cut down the chattiness and merely tabulate the necessary references as, in fact, appear on the final page.

The guidance given in regard to the replacement of a boarded floor by a granolithic concrete floor is very helpful, and is an example of information which should have a fairly wide general application. On the other hand, the information regarding replacement of a granolithic concrete floor that is subject to damage by sugar solutions seems to have a narrower application, especially when the publication rightly advises that an alternative flooring material would probably be more efficient.

The advice on defects of granolithic concrete flooring is excellent excepting that it lays some unnecessary stress on the use of proprietary materials which are often a costly way of buying very ordinary chemicals such as those listed. It seems unfortunate that even greater stress was not laid on the need for increasing care and skill in the selection of materials and in the actual laying of granolithic. More defects arise from faulty work than from the use of the floors, and these defects often emanate from the belief that laying these floors is anybody's work, whereas in fact it is very highly skilled if the floors are to be successful and free from subsequent failures.

As to magnesium oxychloride floors the Bulletin hits the nail on the head when it points out that these can provide good floorings, but it is the attempts to carry them out too cheaply

which have caused the many failures. Considerable skill in selecting and mixing of materials, together with real knowledge in laying are imperative. It is good to see attention is drawn to the effect of this type of material in close contact with steel work, conduits and services, and continues by recommending the use of one-inch thickness of dense concrete or a bitumen coating as a protection.

The references to the use of cement-bitumen emulsion mixes for repair of worn and defective wood block floors are interesting, but it would have helped readers much more if guidance had been given in regard to mix proportions and the type of bitumen emulsion which should be used for the purpose, as so many types are available and only certain of them are suitable for this purpose.

Although this Bulletin is devoted to floor finishes, a little more emphasis on the importance of the sub-floors on which they are to be applied would have been wise, as in my opinion the sub-floors are so often the key to success or failure. At least in the list of references mention is made of the M.O.W. Advisory Leaflet No. 5, which sets out the essential information for laying screeds.

The idea of operating a technical information bureau for the use of members of the L.M.B.A. is excellent and I hope it will lead to similar activities in other areas. Several members have told me that they have already received excellent and really helpful replies to their own particular queries. I doubt, however, that this extension of the bureau's work by issuing to all members these Bulletins is so worthwhile unless it takes the form of informing members, possibly by means of a synopsis, of the national publications from B.R.S., M.O.W. and B.S.I. which they should obtain, read and file for reference. I have found the B.R.S. Digests circulated in my organization's journal to be valuable and I believe they are more useful than these Bulletins are likely to be, unless they change their form.

If, however, there is to be, as is desirable, a general distribution of information from many sources I hope that they will all use the same basic sources in order to avoid contradictions. The basis of all the distributions should be the work of B.R.S. and, in consequence, I hope that all difficult queries and real problems will always find their way to B.R.S. in order that they may be properly investigated and the knowledge gained be made available ultimately to all.

Undoubtedly many of the problems and difficulties of builders and architects are only repetitions of similar troubles experienced by others; thus if the simple ones and those without novelty can be answered through enquiry bureaux, such as that of the

L.M.B.A., it should leave B.R.S. more time to cope with those problems which are new or require very specialized knowledge to handle. A flow back of problems and experience in practice to B.R.S., either direct or through properly organized information centres, is of just as much importance as the outward flow of information resulting from the normal research work of the Station. I have the greatest admiration for the work of the B.R.S. and only wish that certain other research stations would put out as efficient guidance on subjects which become the day-to-day problems of those of us who actually build.

We have only limited time available for reading and keeping ourselves informed of developments, thus deep or long-winded scientific reports are apt to cut little ice as we are unable to spare the time to digest their contents. We must have our information in a short and simple form from which it is easy to assimilate the essentials; they need to be written in language which we and those who build for us understand. I gather B.R.S. employs architects on its staff but, alas, I doubt that this is sufficiently general in some of the other stations whose work bears on the building industry. It is, in my opinion, these architects who should be given the task of translating into our language the excellent work of the scientists, including those architects who by long association with a research station think and write as scientists. Even B.R.S. publications tend to be too scientific in their approach to make their full impression on many of my colleagues especially those, and I fear there are rather many, who are somewhat unwilling readers of guidance as to how to build properly. I wonder whether as architects and builders we spend as much time and money as we ought on informative publications. Enquiries I make from time to time do not suggest we do as much as we should and I think we tend to forget that it is our duty to our clients to be technically up to date on constructional and building material matters as well as in the fashions of planning and design. We certainly need to read but those who set out to help us in this direction, should aid us all they can by producing the correct knowledge in as short and understandable form as possible.

DUTCH UNCLE

M.O.W. LECTURES JANUARY

ACCRINGTON, *January 8th, at 7.15 p.m.*
GOOD PRACTICE IN PLUMBING.
Speaker: F. N. Shummin, Senior Sanitary Engineer, Ministry of Works, at the College of Further Education, Accrington.

EAST HAM, *January 8th, at 7.40 p.m.*
TECHNIQUES AND DEVICES FOR IMPROVING BRICKLAYING OUTPUT.
Speaker: C. S. Thompson, Buildings Research Station, at the East Ham Technical College, Department of Building, Argyll Road, E.6.



SERVICES ELECTRIC WIRING & ACCESSORIES B5 13

Illustrations B5 13 to 16 inclusive show two new developments which are to be shown in a series of exhibitions in large industrial centres. One of these units is the Superform useboard illustrated alongside with an interior view in B5 14.

The Superform should appeal to all who are interested in the electrification of public buildings and others where clean design and appearance are of almost equal importance with efficiency.

The exhibitions will be held in Glasgow, Sheffield and Manchester. The Glasgow exhibition will be at the Central Hotel on January 14 and 15 1953.

Details of the other exhibitions may be had on application.



SERVICES ELECTRIC WIRING & ACCESSORIES B5 14

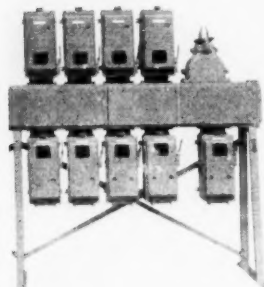
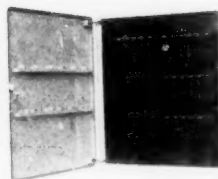
Interior views of the Superform useboard (for exterior see B5 13).

This unit is a smoothly designed metal-clad fuseboard arranged for surface or flush mounting. Ratings available are 15, 30 and 60 amps, up to twelve ways.

Cartridge fuse links, carrying A.S.T.A. certification of rupturing capacity to B.S. 88-1947 are incorporated.

The hinged cover is designed to eliminate dust and moisture and is of rigid construction with self locking and finger pressure opening devices.

A cylinder lock and key can be provided. The shelves inside the door carry spare fuse link cartridges thus making for easy and quick replacement of fuses.

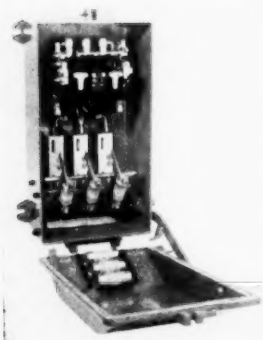


SERVICES ELECTRIC WIRING & ACCESSORIES B5 15

The second new item referred to in B5 13 is a "combination" Fuse Switch Contactor whose principal interest will be for factory engineers and others who use electric motors up to and including 15 h.p. three-phase 400/440 volts.

Incidentally several British Standard motors are being shown at the exhibitions of the new unit.

These fuse switch contactors are in two sizes, one for motors up to 7½ h.p. and the other for motors from 7½ h.p. to 15 h.p. Each unit is fully metal clad and dust proof. This picture shows a range of the units neatly mounted. For interior of one unit see B5 16.



SERVICES ELECTRIC WIRING & ACCESSORIES B5 16

An open view of one "combination" Fuse Switch Contactor. The fuse links are of the cartridge type with fully shrouded contacts.

The contactor unit is equipped with three magnetic overload coils with oil dashpot time lags and local stop-start buttons fitted in the hinged cover as shown.

MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products—including price and availability—will be forwarded to readers on request.

Letters should quote the serial number and be addressed to:

The Editor,
The Architect and Building News,
Dorset House,
Stamford Street, S.E.1.

Please mark the envelope MOSAICS.

INDUSTRIAL NOTES

AMENDMENT TO MOSAIC NOVEMBER 27

A false impression may have been given in our reference to the Loraire fire, illustrated in MosaiCS of November 27.

It is not necessary to fit the extension plate for overnight burning when the fire is fitted in a brick back without a boiler. The fire is continuous burning without the extension plate.

When a fire back boiler is fitted the extension plate is required for overnight burning.

Mr. Harold Macmillan, M.P., Minister of Housing and Local Government, is to be the guest of honour of the L.M.B.A. at a luncheon in the Hyde Park Hotel, on January 20, 1953, the day of the L.M.B.A. annual meeting. The President, Mr. D. E. Woodbine Parish, will preside.

What is believed to be the first National Exhibition devoted solely to the British Glass Industry, and of interest to all users of glass in its industrial and domestic forms, will take place at the New Horticultural Hall, Westminster, London, S.W.1, on May 11-16, 1953.

In addition to the finished products of all kinds, the exhibition will include plant, machinery, raw materials, and demonstrations of glassblowing and other processes involved in the industry.

The organizers are B. & C. D. Trade Exhibitions, Ltd.

Exfoliated vermiculite for home and industrial insulation, specially graded and packed for ready use, is now being marketed under the trade name of "Micafil" by Exfoliators (Vermiculite), Ltd., Broadwater Road, Welwyn Garden City, Herts, producers of "Palabora" vermiculite for the building trade and "Veri-gro" horticultural vermiculite.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

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CONTRACT NEWS

OPEN

BUILDING

BACUP B.C. (a) Erection of up to 50 houses. (b) Borough Engineer, Municipal Offices, Stubbylee Hall. (c) 2gns. (e) Jan. 8.

BATH C.C. (a) Temporary canteen at Monks Park House, Corsham, Wilts. (b) Robert Townsend, 7, Bridge Street. (c) 2gns, cheque payable to Council. (d) Dec. 27.

BLANDFORD R.C. (a) 24 dwellings, laying approx. 330 yds of water main, 157 yds of rising main, 584 yds of 6in sewer, etc., for the Bryanston housing scheme. (b) Council's Clerk, "Nordon," Salisbury Road, Blandford Forum, Dorset. (c) 3gns. (e) Jan. 24.

BRIERFIELD U.C. (a) 29 houses, Coronation Road, Parson Clough Estate. (b) Council's Surveyor, Town Hall. (c) £2. (e) Jan. 7.

CLACTON U.C. (a) 1 pair of bungalows, Agincourt Road, Clacton-on-Sea. (b) Engineer and Surveyor, Town Hall. (c) 2gns. (e) Jan. 3.

CUMBERLAND C.C. (a) Nurse's house with surgery, waiting space and garage at Burgh-by-Sands, near Carlisle. (b) County Architect, 15, Portland Square, Carlisle. (c) Jan. 31.

EIRE-DUBLIN. (a) New Dominican Convent national schools for girls and infants at Ballyfermot, Dublin, for the Mother Prioress General. (b) Messrs. Leonard and Williams, 32, Nassau Street, Dublin. (c) £50. (e) Jan. 16.

ELLESMERE PORT U.C. (a) (Contract No. 142) 8 houses, Station Road, Ince Estate. (b) Engineer and Surveyor, Queen Street. (c) 3gns. (e) Jan. 5.

ELLESMERE PORT U.C. (a) Provision and erection of 50 prefabricated lock-up garages on various estates. (b) Engineer and Surveyor, Sub-Office, Queen Street. (c) 1gn. (e) Jan. 5.

ELSTREE R.C. (a) Civil Defence headquarters at Boreham Wood. (b) Engineer and Surveyor, Council Offices, Shenley Road, Boreham Wood, Herts. (c) 2gns. (e) Jan. 21.

EPPING U.C. (a) 37 houses, Beaconfield Estate. (b) Council's Clerk, Council Offices, 91, High Street. (c) 2gns. (d) Jan. 5. (e) Feb. 7.

ESSEX C.C. (a) Alterations and additions at proposed hostel for elderly persons at Brookfield, Oak Hill, Woodford Green (approx. value of contract £20,000). (b) County Architect, County Hall, Chelmsford; with full details. (d) Jan. 3.

ESSEX C.C. (a) Kitchen and dining room in M.O.W. standard huts at Churchfields Primary School, Woodford (approx. value of contract £10,800). (b) County Architect, County Hall, Chelmsford. (d) Dec. 31.

address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

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FELLING U.C. (a) 76 houses, near Fisherwell Road, Pelaw. (b) Chief Housing Officer, Council Buildings, Felling, Gateshead, 10. (c) 2gns. (e) Jan. 7.

GREAT YARMOUTH B.C. (a) 88 flats and maisonettes, Middlegate Street Clearance Area. (b) Borough Engineer, Town Hall. (c) Jan. 12.

KENILWORTH U.C. (a) 30 lock-up garages, Bulkington Estate. (b) Council's Surveyor, Council House. (c) Jan. 6.

KINGSBRIDGE R.C. (a) 4 pairs of houses at Stoke Fleming. (b) Council's Architect, Manor House. (c) 2gns cheque payable to Council. (d) Dec. 29.

LEEDS REGIONAL HOSPITAL BOARD. (a) Erection of 2 nurses' hostels at the Sutton Branch of the Hull Royal Infirmary, Sutton-on-Hull. (b) Board's Architect, Park Parade, Harrogate. (c) 2gns. (d) Dec. 31. (e) Jan. 19.

LONDON—HAMPSTEAD B.C. (a) 18 flats, 5 lock-up shops and 17 garages at Dennington Park Road and West End Lane, N.W.6. (b) Town Clerk, Town Hall, Haverstock Hill, N.W.3, with statement of work already carried out. (d) Jan. 2.

MONTGOMERY C.C. (a) Alterations and additions to the Homes for the Aged, Plas-Cae-Crwn, Newtown. (b) Chief Welfare Officer, Welfare Department, County Offices, Welshpool, Mont. (c) 2gns. (e) Jan. 12.

N. IRELAND—DUNDONALD COUNTY E.C. (a) Extension to Dundonald Primary School, Dundonald, Belfast. (b) Messrs. Ogilby and McCutcheon, 5, Lombard Street, Belfast. (c) 5gns. (e) Jan. 8.

N. IRELAND—HILLSBOROUGH R.C. (a) 38 houses and ancillary works at Blaris, Hillsborough, Co. Down. (b) Mr. W. B. Maxwell, 5, University Terrace, Belfast. (c) 5gns. (e) Jan. 13.

SALT BURN AND MARKE-BY-THE-SEA U.C. (a) Contract A) 6 houses and outbuildings, (Contract B) 6 houses and outbuildings, (Contract C) 6 houses and outbuildings on the "Parkway," Marske Road housing scheme. (b) Engineer and Surveyor, Council Offices, Saltburn-by-the-Sea. (c) 2gns. (e) Jan. 12.

SALOP C.C. (a) Secondary school at Wrockwardine Wood, near Wellington. (b) County Architect, Column House, London Road, Shrewsbury; with details of skilled labour and plant, contracts carried out and names of architects concerned. (d) Dec. 31.

ST. ALBANS C.C. (a) (1) block of 6 shops with 12 flats above and block of 10 shops with 20 flats above at the St. Julians and New Greens sites; (2) construction of approx. 1,150 sq yd of sewers, 1,150 sq yd of macadam roadway and 3,200 sq yd of reinforced concrete roadways, etc., for Valley Road improvement and industrial site. (b) City Engineer, 16, St. Peter's Street. (c) 2gns. (e) Jan. 13.

SEATON U.C. (a) (1) 16 houses, 6 flats, 1 shop with maisonette above; (2) 23 houses at Elizabeth Road. (b) Antony Lamb, 2, Prospect Place, Ottery St. Mary, Devon. (c) 3gns payable to Council. (e) Jan. 28.

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WALTHAM HOLY CROSS U.C. (a) 37 houses, Paternoster Hill Estate, Upshire, Waltham Abbey. (b) Council's Surveyor, Town Hall, Waltham Abbey. (c) £2. (e) Feb. 16.

WOKING U.C. (a) Erection of Superintendent's house at Goldsworth Road Depot. (b) Engineer and Surveyor, Council Offices. (c) 2gns. (e) Jan. 12.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

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WALSALL B.C. (1) 112 houses. (2) Gipsy Lane Estate. (3) Sir A. McAlpine and Sons, Ltd., Waterloo Road, Wolverhampton. (4) £152,916.

CARDIFF CITY COUNCIL. (1) Peter Lee primary school. (2) Fairwater. (3) W. T. Nicholls, Ltd., Cathedral Road, Cardiff. (4) £100,000.

LEWES B.C. (1) 40 houses. (2) Church Lane Estate. (3) Ringmer Building Works, Ltd., Ringmer, Sussex. (4) £56,323.

KINGSTON-ON-THAMES B.C. (1) 40 houses. (2) Chessington Hall Estate. (3) Orchard and Peer (London), Ltd., Station Approach, Wandsworth Common, S.W.12. (4) £61,797.

WORCESTER CITY COUNCIL. (1) First part of primary school. (2) Dines Green. (3) Dolton Bros., Ltd., 43, Newtown Road, Worcester. (4) £23,898.

MIDDLESEX C.C. (1) Infants' school. (2) Stanwell, Staines. (3) G. Moss and Sons, Ltd., Lady Margaret Road, Southall. (4) £66,350.

MARKET DRAYTON U.D.C. (1) 30 houses. (2) Longslow Road. (3) J. A. Harvey, Ltd., Smithfield Road, Market Drayton. (4) £49,141.

STEPNEY B.C. (1) Maternity and child welfare centre, and library. (2) Library Place. (3) F. Goff and Son, Ltd., 1a, Atherton Road, London, E.7. (4) £11,775.

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ADMIRALTY. (1) Construction of barrack block. (2) Deal. (3) R. Corben and Son, Ltd., West Borough, Maidstone.

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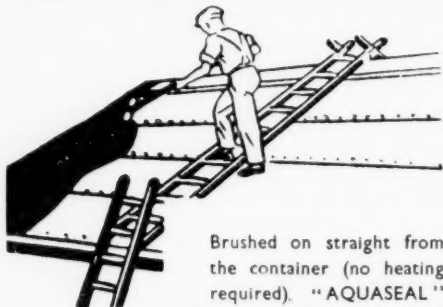
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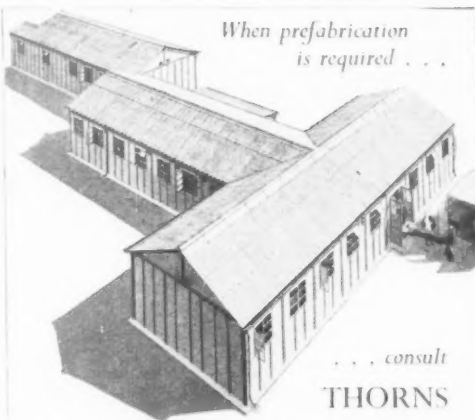
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[6835]

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[6480]

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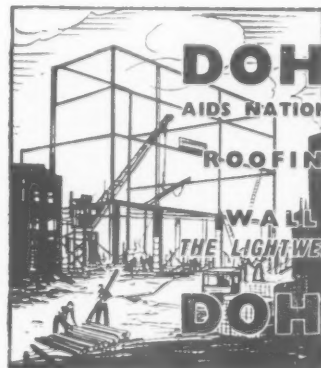
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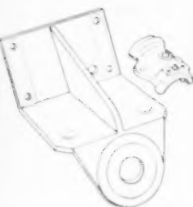
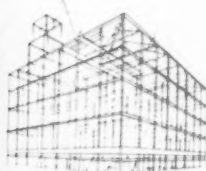
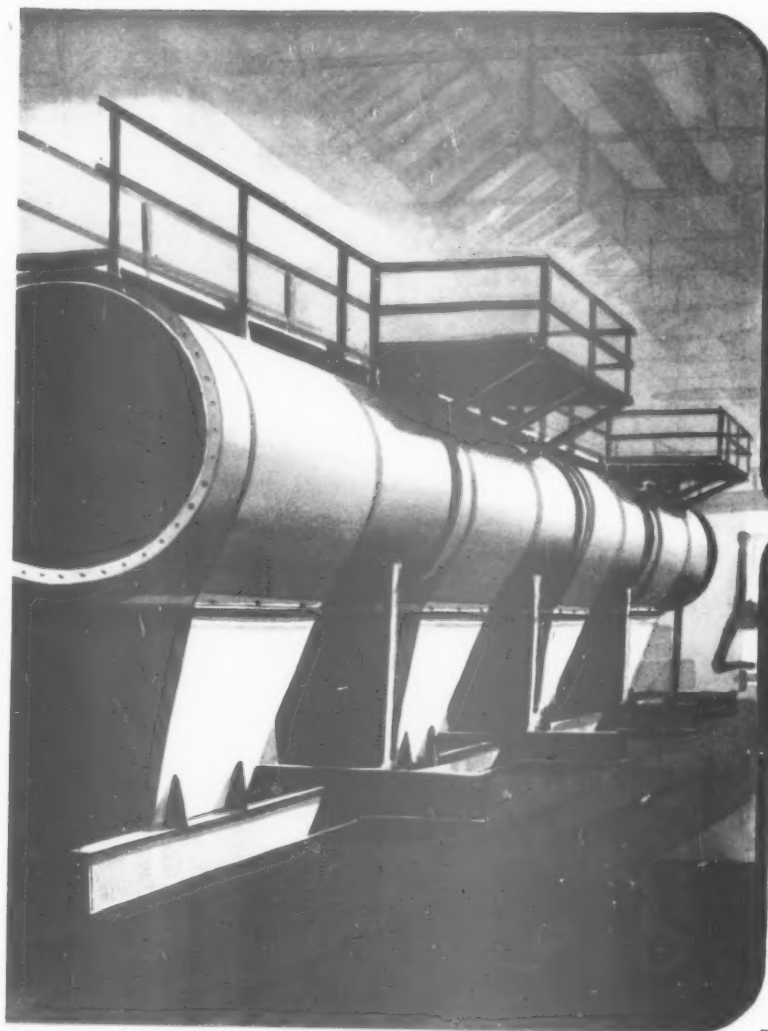
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